MTH1080- 80735 & MTH1080- 80824
2010SU2
Intermediate Algebra and Introduction to Trigonometry
Syllabus

Instructor:  Fawaz A. Roumani, PhD
Email: Faroumani@csmd.edu
I won’t open an email if I don’t know who it is from. Thus, when emailing me, the subject line of the email must be: MTH1080 followed by your first & last name.
Any email without this information will be deleted without being opened.

Instructor Policies:
1. Only work done in pencil will be accepted.
2. All multiple page assignments must be stapled together to be accepted.
3. Only punctual assignments will be accepted.
4. Pagers and cellular phones must be turned OFF upon entering class. Text messaging during class is not permitted under any circumstances.

Office Address & Phone: ST 193  Tel: (301) 934 -7805  Math Dept Tel : (301) 934 7839
For official emergency closing information call 1-800-650-4023

Office Hours & Location: ST193: By appointment

Class Times And locations: MTH1080- 80824  ST143: MW 06:00PM-09:00 PM
MTH1080- 80735  ST143: TTH 02:00PM-05:00 PM

Prerequisites: Mth 1000 or 1040 or Appropriate Placement Test Score

Required Texts: Elementary & Intermediate Algebra with Trigonometry (Custom Edition for the College of Southern Maryland)
Access Code for MyMathLab

Required Materials: Pencils and erasers. Calculator: TI 83 or TI 83 Plus or TI 84
(Students using other types of calculators are responsible for learning their use from the owner’s manual.)
The following URLs are a good source for you if you need some help with the TI-83/84
http://www.prenhall.com/esm/app/graphing/ti83/
http://joemath.com/ti_83/icons/weblinks.htm
http://education.ti.com/studentzone/getahead/home_getahead.html
The Math Department also has a website for the Ti-83/84
http://www.itc.csmd.edu/mth/ti83/
Important Dates

June 14th, 2010: First day of classes
July 19th, 2010: Last day to withdraw or change to an audit
August 16th, 2010: Classes end for the semester

Attendance and Class participation:

There are two keys for success in this class. They are GOOD Attendance and ACTIVE student involvement.

Attendance will be checked and recorded daily. It is assumed all students will attend every class. It is however realized that occasionally a student may need to miss a class. The main impact of a missed class is the opportunity for help on the material presented, discussed and worked on that day in class. Regardless of whether you are present or absent from class, YOU are responsible for learning the concepts.

Class participation: You are encouraged to answer the instructor’s questions even if you are not sure about your answer and to ask questions related to the subject covered. Being present in every class is not sufficient to receive full credit assigned for class participation. Be active in class in order to receive full credit assigned for class participation.

Quizzes and other assignments will also be affected by missing class and penalties will apply. YOU are responsible for making sure you get any assignments that are handed out in class in order to ensure you can turn them in on time. There is no opportunity to make these assignments up.

MyMathLab:

My MathLab is a powerful online, homework, tutorial and assessment system that accompanies your new textbook. Instructors can create, edit online homework, quizzes, and exams using algorithmically-generated exercises correlated to the objectives in the textbook. Students work is tracked in an online grade book. Students can take practice assessments, and receive personalized study plans based on their results. The study plan diagnoses weaknesses and links students to tutorial exercises for objectives they need to study. In many cases students can also access video clips, PowerPoint presentations, and other animations for each section and from selected exercises.

MyMathLab (http://mymathlab.com) will be utilized in the following manner for this section:

- **Online Homework** – see below
- **Practice Quizzes** – At the end of each chapter, there will be a practice quiz available. While these practice quizzes are not part of your grade, they will give you an opportunity to see which skills need more practice.

MyMathLab is NOT a program operated by CSM. If you are experiencing technical difficulties using the program, then you should call the MyMathLab support number given below. Do Not Call the CSM Help Desk.

Toll Free: 1-888-695-6577
Hours: M-Th, 9am-10pm
Friday, 9am-5pm
Sunday, 5pm-10pm
Graded Homework: In order for you to be successful in this course, it is important that you take immediate ownership for the course and assume an active role in the learning process right from the start. For each section after reading the textbook and watching the resources (including a Video Lecture) in the MyMathLab/Course Compass (MML/CC) Multimedia Library, students are expected to complete the Homework assigned through MML/CC, www.mymathlab.com. This is the most important aspect of any math course because it is at this stage when most of the understanding of the mathematical concepts will occur. The homework problems provide direction for this part of the learning process.

Every bit of homework you do will count towards your final grade so it is mandatory. The nice thing about MML/CC homework is that you can do each problem over and over until your understanding is such that you get them all right. This repetition is encouraged because it is with practice that we achieve mastery in anything in life.

All homework must be completed by the indicated time in Course Compass. Late work will NOT be accepted so waiting until the last minute to complete the homework is the height of folly and is done at your own risk.

Quizzes: A number of quizzes will be given and must be completed in pencil. I will drop the lowest 2 quizzes for each student. No make-up on quizzes is allowed. This is the purpose for the drop. A missed quiz is counted as a drop.

Tests & Final Exam: Tests must be completed in pencil and are scheduled in advance. For a test taken on time, I will provide you with a formula sheet.

The last class will be used to administer a mandatory comprehensive final exam. As usual, this exam must be completed in pencil.

Make up exams are given only under extreme circumstances (hospitalization, death in the immediate family) and only with sufficient documentation like a doctor’s note. Notice that car trouble is not considered an extreme circumstance. You can take a cab or, if in Charles County, VanGO. No make-up exams will be administered without documentation and prior notice. If you do not contact me on the day of the test, you will not be allowed to make up the test at all. In the event that you miss an exam, I will be expecting an email/phone call from you and, thus, will respond quite promptly. If you have not heard back from me shortly, keep trying until you do. It is your responsibility to get a hold of me and set up the appointment. Active communication with me is imperative. Upon my approval, you will have until I return the graded tests to the class (usually the next class period) or one calendar week to make up the test, whichever comes first. All make up exams will be administered in my office.

There are no make-ups for the Final Exam.
Requirements and Grading:

3 Unit Tests 45%
Graded HW Assignments 15%
Quizzes: the Best ones after dropping the lowest two 15%
Comprehensive Final Exam 20%
Class participation 5%

Scale:
100-90 A
89-80 B
79-70 C
69-60 D
59-0 F

FX GRADE
A grade of “FX” is given at midterm and at the end of the semester if a student has not been attending the class. If the student has not attended for an extended length of time, the grade of FX will be given. The grade will appear on the transcript and equate to an “F” in the grade point calculation.

Background, Purpose, Description, & Objectives:

The objectives of the course are to complete the students algebraic background sufficient for the study of college level mathematics. This course is the bridge between elementary algebra and college level mathematics. Students study linear, quadratic, power, exponential, and logarithmic functions. They learn how these functions can be used to model data and solve applications. The course includes both symbolic and graphical methods. Graphical solutions to equations are explored through the use of a graphing calculator.

The course also includes right triangle trigonometry. Additional topics may include systems of equations, inequalities, complex numbers, and matrix operations.

Upon the completion of this course you should be able to do the following:

- Translate and solve algebraic equations, inequalities, and absolute value open sentences
- Graph equations in two variables
- Understand and use function notation
- Find the slope and equation of a line
- Solve systems of equations in two variables
- Understand exponents, their properties, and applications such as Scientific Notation
- Add, subtract, multiply, divide, and factor polynomials
- Add, subtract, multiply, and divide rational expressions
- Solve rational equations
- Find roots of real numbers and sums of radicals
- Graph quadratic functions and identify its characteristics
- Solve quadratic equations using a variety of methods (Completing the square, Quadratic Formula, Graphing, etc.)
- Understand exponential functions
- Understand logarithmic functions and their properties
- Become familiar with the basics of trigonometry and trigonometric functions
Intermediate Algebra (MTH1080) is NOT considered to be a “general education” course (as described in the College Catalog), but is a prerequisite to other math courses. Please contact your advisor if you have any questions.

General education skills that are covered in this course include:

- Perform mathematical operations accurately.
- Make mathematical estimates and approximations to judge the reasonableness of results.
- Interpret graphs and tables.
- Understand mathematical information and relationships stated in words.
- Utilize appropriate mathematical models to solve problems while recognizing the assumptions and limitations of the models.
- Apply appropriate theories to solve problems.
- Identify, define, evaluate and solve problems.

Tutoring will be available at various times Free of Charge! The tutoring center will be hiring math tutors and will establish a tutoring schedule. The schedule will be set up soon after the start of the semester. Contact the Student Success Center www.csmd.edu/studentsuccess/tutoring for that info.

SMARTHINKING is an online tutoring service paid for by CSM and is free of charge for you. You may use it for Math (Basic Math to Calculus, including Statistics), Writing, ESL, Accounting, Economics and Chemistry. Your instructor will distribute a flyer as soon as he or she is given the information, usually within the first two weeks of class, with the login directions and the password needed. CSM pays for a fixed number of hours for the student body, meaning that this service may be exhausted before the end of the semester. (There is a possibility that CSM may not offer this service this semester.)

Resources are in each campus library. The current resources are in the form of VCR tapes and CDs that contain a short lecture for each section in the book. These can only be used in the library. There are some resources that are from older editions of the book that are available for check-out. You may also purchase a copy of the CDs from the college bookstore.

Student Solutions Manual is of great help even though it is not required in this course. You can purchase one in the college bookstore if you determine you need it.

There is help using the graphing calculator within the college website. The URL is www.itc.csmd.edu/mth/ti83/index.htm. If you need further help with the calculator, please see your instructor.

Students switching their class status between credit and audit must have a conference with the instructor prior to making the change. There are strict attendance requirements for an audit or the students will be assigned an administrative withdrawal.

The last day to withdraw or audit the class is July 19th, 2010. It is your responsibility to initiate the paperwork.
Disabilities & Special Needs

Students with disabilities or special needs must contact the Learning Assistance Center to formulate an Accommodation Plan. This important legal document describes what is medically necessary in order for you to take this course. Until you present your Accommodations plan, I cannot and will not honor your requests for exams in the Testing Center, extra time, special seating, large print, a tape recorder, etc. If you believe you should have special accommodations and do not have an Accommodation Letter please contact the Disabilities Coordinator:

Glennis Daniels-Bacchus
Office: LaPlata Campus in LR 123
Voice: (301) 934-2251, ext. 7614
TDD: (301) 934-1188
Email: glennisd@csmd.edu

Other College Policies:

Any student caught cheating, or is guilty of any other form of academic dishonesty, will be dealt with by following the established policy published in the Student Handbook. As a minimum penalty it is my practice to recommend a grade of zero on the entire document involved. On serious cases, I do not hesitate to seek more severe penalties.

Some of the behaviors that will be considered cheating are:

- Communicating with another person during an assessment
- Copying material from another person from any assignment being graded
- Allowing another person to copy from any assignment being graded
- Use of unauthorized assistance on any assignment being graded
- Use of unauthorized notes or books during an assessment
- Providing or receiving a copy of a quiz or exam used in the course
- Use of a cell phone or pager during an assessment

The College is emphasizing a policy prohibiting students from bringing guests (children) to class. This policy will be strictly followed because of insurance and liability issues.

The College is a Drug-Free Zone. No trafficking or use of drugs or alcohol will be tolerated. Provisions of the Student Code of Conduct in the Student Handbook will be followed.

Expectations

In order for you to be successful in your mathematics courses, the faculty of the mathematics department has developed the following common expectations of all students in mathematics courses.

1. As a student, you need to take responsibility for your own learning. This includes, but is not limited to:

   - Arriving on time for each class
   - Staying for the entire class and not leaving class early
   - Actively participating in class and not sleeping or putting your head down
• Not engaging in other activities that detract from the classroom learning experience
• Bringing the required materials to class. These might include textbooks, notebooks, binders, pencils, pens, and calculators.
• Taking care of all business (phone calls, bathroom breaks, getting food, drinks, things from cars, etc.) before class starts.

2. You are expected to be an active learner in the classroom as well as out: to participate in group discussion, ask and answer questions, and work problems at the board.

3. You are expected to study your textbook, not merely work problems from it. The best way to do this is to read the section to be covered before the lecture is given, listen to the lecture and take notes, and then study the text again before tackling the practice problems. If this seems like a lot of work, remember that you need to allot 2 hours outside of class for each hour in class. This time commitment increases for online, web-hybrid, and computer-assisted classes.

4. There is no substitute for continued and ongoing studying and doing homework problems. The best way to learn mathematics is to do mathematics.

5. It is your responsibility to keep your homework up-to-date. If you are having difficulty with the course material, then you need to take action right away – do not wait until you have lost all hope! There are several options to get assistance:
   • Talk to your instructor during office hours.
   • Visit the student success center on campus. Tutors and hours are available at www.csmd.edu/StudentSuccess/Tutoring/
   • Use online tutoring available at www.smarthinking.com

6. Realize that college level mathematics can be hard and is not always fun.

7. You are given the means to keep track of your grade and are expected to take responsibility for knowing your grade status throughout the semester.

8. Learning mathematics is different from learning other subjects. In a mathematics course, you must be able to do four things:
   a. Understand the material.
   b. Process the material.
   c. Apply what you have learned to solve a problem correctly, and
   d. Remember what you have learned in order to learn new material.

9. Another reason that learning mathematics is different from learning other subjects is that it follows a sequential learning pattern, which simply means that the material learned on one day is used the next day and the next day, and so forth. This building block approach to learning mathematics is the reason it is difficult to catch up when you fall behind.
10. Mathematics is a speed subject. College mathematics courses cover twice the material in the same time frame as do high school mathematics courses. Faculty has a certain amount of material to be covered each semester. They have to finish certain chapters because the next course is based on the information taught in this course. Improve your study skills so you can keep up!

11. Another way mathematics is a speed subject is that most of the exams and quizzes are timed and many students think that they will run out of time. Students not only must understand how to do the mathematics problems but also must learn the mathematics well enough to complete the problems with enough speed to finish the test.

12. During the first few days of class, do not take the attitude that "I already know this material" and start to slack off by not taking notes or not completing homework assignments. Good study habits start from the first day of class. Start practicing good study habits now while the material is familiar to you. In that way, those habits will already be a part of your routine when the material becomes more challenging.

13. Take pride in your work and never let yourself fall into the trap of believing that you cannot do mathematics. Virtually everybody can, if he or she is willing to work hard enough. Be persistent and determined in your work.
## College of Southern Maryland
MTH-1080-80735 & MTH-1080-80824
Intermediate Algebra and Introduction to Trigonometry
4 credit hours

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<tr>
<th>Session</th>
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<tr>
<td>1</td>
<td>Prerequisite Material - Review Beginning Algebra (Chapters 2-5)</td>
<td>All algebra homework is to be done through MyMathLab - <a href="http://www.mymathlab.com">www.mymathlab.com</a></td>
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| 2       | 6.5 - Summary of Factoring Techniques  
6.6 - Solving Polynomial Equations by Factoring  
6.7 - Modeling & Solving Problems with Quadratic Equations | Along with the access code that came with your purchase, you will need the COURSE ID: |
| 3       | 7.1 - Simplify Rational Expressions  
7.2 - Multiplying & Dividing Rational Expressions  
7.3 - Adding & Subtracting Rational Expressions with a Common Denominator (ex. 5 & 7 only) | |
| 4       | 7.4 - Finding LCD and Forming Equivalent Rational Expressions (ex. 6 only)  
7.5 - Adding & Subtracting Rational Expressions with Unlike Denominators (ex. 2, 4, 5, 8, 10 only)  
7.7 - Rational Equations  
7.8 - Models Involving Rational Expression (skip ex. 2, 3, 9) | |
| 5       | Exam 1 - Chapters 6, 7  
8.1 - Graphs of Equations  
8.2 - Relations: An Introduction to Functions | |
| 6       | 8.3 - Functions  
8.4 - Functions & Their Graphs  
8.5 - Linear Functions (thru ex.4)  
8.6 - Compound Inequalities | |
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| 7       | 8.7 - Absolute Value Equations (thru ex.4)  
          | 8.8 - Variation (examples 2 & 3 only)  
          | 9.1 - Square Roots  
          | 9.2 - $n$th Roots and Rational Expressions  
          | 9.3 - Simplifying Expressions Using the Laws of Exponents (thru ex. 4) |
| 8       | 9.4 - Simplifying Radical Expressions (ex. 1-9 only)  
          | 9.5 - Adding, Subtracting, & Multiplying Radical Expressions  
          | 9.6 - Rationalizing Radical Expressions (ex. 1-3 only)  
          | 9.7 - Functions Involving Radicals |
| 9       | 9.8 - Radical Equations and Their Applications (skip ex. 7)  
          | 9.9 - The Complex Number System  
          | 10.1 - Solving Quadratic Equations by Completing the Square  
          | 10.2 - Solving Quadratic Equations by the Quadratic Formula |
| 10      | Exam 2 - Chapters 8 & 9  
          | 10.4 - Graphing Quadratic Functions Using Transformations |
| 11      | 10.5 - Graphing Quadratic Functions Using Properties  
          | 12.1 - Distance & Midpoint Formulas  
          | 12.2 - Circles |
| 12      | 11.1 - Composite & Inverse Functions  
          | 11.2 - Exponential Functions |
| 13      | 11.3 - Logarithmic Functions  
          | 11.4 - Properties of Logarithms  
          | 11.5 - Exponential & Logarithmic Equations |
| 14      | Trg 7.1 - Angles and Their Measures  
<pre><code>      | Trg 7.2 - Right Angles Trigonometry |
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<td>Review for Exam 3 and Final Exam</td>
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<td>16</td>
<td>Exam 3 - Chapters 10, 11, 12, and Trig</td>
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<tr>
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