Math 1080-80628 - Intermediate Algebra (4 credit hours)
Syllabus – Summer III 2010

Instructor: Jim Cleary
http://www.itc.csmd.edu/mth/syllabus/index.htm

Email: jcleary@csmd.edu  This is the best way to reach me
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 section number.
For example: “MTH1080-80628”
Any email without this information will be deleted without being opened.

Instructor Policies:
1. Only work done in lead pencil will be accepted – not kidding.
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.
5. Only properly referenced emails will be opened (see above)

MML CourseID Cleary52604

Office Address & Phone:
College of Southern Maryland
Attn: Jim Cleary MTH
8730 Mitchell Road
PO Box 910
LaPlata, MD 20646
(301) 934-7790 x 3968
For official emergency closing information call 1-800-650-4023

Office Hours & Location:
LaPlata Campus, Bldg. ST194
MWTh 12:30 – 12:50 PM
T 11:30 AM – 12:00 PM

Class Times: MWTh 1:00 – 4:00 PM Room ST141

Prerequisites: Mth 1000 or 1040 or Appropriate Placement Test Score

Required Materials: LEAD PENCILS & ERASERS
Elementary & Intermediate Algebra with Trigonometry (Custom Edition for the College of Southern Maryland)
TI 83 or TI 83 Plus or TI84
(Students using other types of calculators are responsible for learning their use from the owner’s manual.)
Attendance: There are two keys for success built into the operating structure I have developed for 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.

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. Students can take 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://www.coursecompass.com) will be utilized in the following manner for this section:

- Online Homework
- Online Quizzes
- Online Videos

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
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 (MML) Multimedia Library, students are expected to complete the Homework assigned through MML/CC, www.coursecompass.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.

In fact, if you do not have time to do your homework, you do not have time to pass this class.

Once a section is completed, the homework assignment that corresponds to it is due the next class regardless of the due date listed in MML. Late work will NOT be accepted so waiting until the last minute to complete it is the height of folly and is done at your own risk. The nice thing about MML homework is that you can do each problem over and over until the due date in an attempt to improve your score. This repetition is encouraged because it is with practice that we achieve mastery in anything in life.

Warning: When doing the MML homework, your goal is to be able to complete it without the use of the “Help Me Solve This” or “View an Example” helps. If you are not able to do so, you do not know the material well enough to be successful on Exams or Quizzes.

Quizzes: Quizzes may come in two forms throughout the semester: In class and through MML.

IN CLASS QUIZZES: At the beginning of each class period a short quiz will be administered on material previously covered which must be completed in lead pencil. You must be on time to take these quizzes. If we manage to have more than 10 quizzes during the semester, I will drop the lowest quiz 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.

MML QUIZZES: For each chapter there may be a quiz or two assigned. All quizzes must be completed by the due date in MML. Late work will NOT be accepted so waiting until the last minute to complete it is the height of folly and is done at your own risk. You may take a quiz up to two times before the due date. The possibility of computer problems is the reason for allowing 2 attempts and, thus, there will be no attempt granted after the due date.
Tests & Final Exam:

Tests must be completed in **lead pencil** and are scheduled in advance.

Make up exams are given only under extreme circumstances (your 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 during my office hours or in the Testing Center (my choice). Students taking a make up test forfeit the use of any note card or formula sheet that may have been allowed.

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

There are no make-ups for the Final Exam.

**Requirements and Grading:**

- 3 Unit Tests 60%
- MML Homework 10%
- Quizzes 10%
- Comprehensive Final Exam 20%

**Scale:**

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

**Withdraw & Audit**

The last day to change your class status to withdraw or audit is **Friday, July 30, 2010**. Audits are not automatic. If you have not been completing assignments or have not had good attendance (late or absent or leaving class early more than twice), you will not be granted an audit. You will need to choose between receiving the grade you earn and withdrawing from the class entirely. The terms of the audit will be to

1. Attend, on time and without leaving early, all remaining classes,
2. Complete on time, all remaining assignments with at least the minimum amount of effort you have shown so far.

Failure to comply with these terms will result in a WD for the course. It is your responsibility to initiate the paperwork in time to get the necessary signatures.
Background, Purpose, Description, & Objectives:
The objectives of the course are to complete the student’s algebraic background sufficient for the study of college level mathematics. This course is the bridge between elementary algebra and college level mathematics. Topics emphasized are the study of linear, quadratic, exponential, radical and absolute value equations. Topics on inequalities, systems of equations and inequalities, exponential and logarithmic functions including their properties and graphs as well as right triangle trigonometry are central to the course. Additional topics such as functions, complex numbers and matrix operations are also studied. Emphasis is placed on problem solving with the goal to increase the student’s expertise in this critical area. You will also be exposed to using the graphing calculator to assist with algebraic problems.

Upon the completion of this course you should be able to do the following:
- Graph equations in two variables
- Understand and use function notation
- Find the slope and equation of a line
- Translate and solve algebraic equations, inequalities, and absolute value open sentences
- Solve systems of equations in two and three variables
- Understand exponents, their properties, and applications such as Scientific Notation
- Add, subtract, divide, and multiply polynomials
- Evaluate polynomials
- Factor polynomials
- Solve polynomial equations
- Add, subtract, multiply, and divide rational expressions
- Solve rational equations
- Find roots of real numbers and sums of radicals
- Add, subtract, multiply, and simplify radical expressions
- Solve equations with radical expressions
- Rationalize numerators and denominators
- Add, subtract, and multiply complex numbers
- Graph quadratic functions and identify their 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
- Graph parabolas and circles written in standard form
- Be familiar with the basics of trigonometry and trigonometric functions
- Use trigonometry to solve application problems

General Education Skills Covered in this Course:
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.
Special Aides: 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.

SMARTTHINKING 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.)

MyMathLab is the best resource available for this class. In MML there are lecture videos, and step-by-step instructions on how to complete homework problems.

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
The Math Department also has a website for the Ti-83/84 www.itc.csmd.edu/mth/ti83/index.htm.
If you need further help with the calculator, please see your instructor.

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. For 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.
<table>
<thead>
<tr>
<th>DATE/SESSION</th>
<th>LECTURE TOPIC (read before class)</th>
<th>ASSIGNMENT (after class)</th>
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</thead>
<tbody>
<tr>
<td>7/7/10</td>
<td>UNIT 1</td>
<td>• READ THE ENTIRE SYLLABUS&lt;br&gt;• REGISTER/ENROLL IN MML&lt;br&gt;• Complete Chapters 2 and 3 MML homework&lt;br&gt;• Complete Chapters 4, 5 and 5.5 MML homework</td>
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<tr>
<td>7/8/10</td>
<td>6.5 Summary of Factoring Techniques&lt;br&gt;6.6 Solving Polynomial Equations by Factoring&lt;br&gt;6.7 Modeling and Solving Problems with Quadratic Equations</td>
<td>Complete MML 6.5, 6.6, 6.7</td>
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<tr>
<td>7/12/10</td>
<td>7.1 Simplifying Rational Equations&lt;br&gt;7.2 Multiplying and Dividing Rational Expressions&lt;br&gt;7.3 Adding and Subtracting Rational Expressions with a Common Denominator (ex. 5, 7 esp.)&lt;br&gt;7.4 Finding the Least Common Denominator and Forming Equivalent Rational Expressions (skip examples 1, 3, 7)</td>
<td>Complete MML 7.1, 7.2, 7.3, 7.4</td>
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<td>7/14/10</td>
<td>7.5 Adding and Subtracting Rational Expressions with Unlike Denominators (ex. 2, 4, 5, 8, 10)&lt;br&gt;7.7 Rational Equations&lt;br&gt;7.8 Models Involving Rational Equations (skip examples 2, 3, 9)&lt;br&gt;Unit 1 Review -- Chapters 2 thru 7</td>
<td>Complete MML 7.5, 7.7, 7.8&lt;br&gt;Prepare for Unit 1 Examination</td>
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<tr>
<td>7/15/10</td>
<td>UNIT 1 EXAMINATION&lt;br&gt;Chapters 2 thru 7</td>
<td>Read all of Chapters 8 and 9</td>
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<td>7/19/10</td>
<td>8.2 Relations&lt;br&gt;8.3 An Introduction to Functions&lt;br&gt;8.4 Functions and Their Graphs&lt;br&gt;8.5 Linear Functions (examples 1 through 4)</td>
<td>Complete MML 8.1, 8.2&lt;br&gt;Complete MML 8.3, 8.4, 8.5</td>
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<td>7/21/10</td>
<td>8.6 Compound Inequalities&lt;br&gt;8.7 Absolute Value Equations (ex. 1 through 4)&lt;br&gt;8.8 Variation (examples 2 &amp; 3 only)</td>
<td>Complete MML 8.6, 8.7, 8.8</td>
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<td>7/22/10</td>
<td>9.1 Square Roots&lt;br&gt;9.2 nth Roots and Rational Exponents&lt;br&gt;9.3 Simplifying Expressions Using the Laws of Exponents (ex. 1, 2, 3, 4)</td>
<td>Complete MML 9.1, 9.2, 9.3</td>
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<td>7/26/10</td>
<td>9.4 Simplifying Radical Expressions (ex. 1-9)&lt;br&gt;9.5 Adding, Subtracting, and Multiplying Radical Expressions&lt;br&gt;9.6 Rationalizing Radical Expressions (ex. 1-4)</td>
<td>Complete MML 9.4, 9.5, 9.6</td>
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<td>LECTURE TOPIC (read before class)</td>
<td>ASSIGNMENT (after class)</td>
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<td>7/28/10</td>
<td>9.7 Functions Involving Radicals</td>
<td>• Complete MML 9.7, 9.8, 9.9</td>
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<td>9.8 Radical Equations and Their Applications (skip ex. 7)</td>
<td>• Prepare for Unit 2 Examination</td>
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<td>9.9 Complex Number System</td>
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<td>Unit 2 Review -- Chapters 8 and 9</td>
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<td>7/29/10</td>
<td>UNIT 2 EXAMINATION – Chapters 8 and 9</td>
<td>• Read Chapters 10.1, 10.2, 10.4, 10.5, 12.1, 12.2, and 11.1-11.5</td>
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<td>12.1 Distance and Midpoint Formulas</td>
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<td>8/2/10</td>
<td>UNIT 3</td>
<td>• Complete MML 12.1, 12.2</td>
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<td>12.2 Circles (thru example 2)</td>
<td>• Complete MML 10.1, 10.2</td>
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<td>10.1 Solving Quadratic Equations by Completing the Square</td>
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<td>10.2 Solving Quadratic Equations by the Quadratic Formula</td>
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<td>8/4/10</td>
<td>10.4 Graphing Quadratic Equations Using Transformations</td>
<td>• Complete MML 10.4, 10.5</td>
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<td>10.5 Graphing Quadratic Equations Using Properties</td>
<td>• Complete MML 11.1, 11.2</td>
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<td>11.1 Composite Functions and Inverse Functions</td>
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<td>11.2 Exponential Functions</td>
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<td>8/5/10</td>
<td>11.3 Logarithmic Functions</td>
<td>• Complete MML 11.3, 11.4, 11.5</td>
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<td>11.4 Properties of Logarithms</td>
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<td>11.5 Exponential and Logarithmic Equations</td>
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<td>8/9/10</td>
<td>Trigonometry Section -- see MML Course Documents for Trigonometry Text Materials)</td>
<td>• View MML Trigonometry Videos and complete MML 2.1a, 2.1b, 2.2, 2.3</td>
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<td>2.1a and 2.1b</td>
<td>• Prepare for Unit 3 Examination</td>
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<td>Unit 3 Review -- Ch. 10, 11, 12, and Trigonometry Section</td>
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<td>8/11/10</td>
<td>UNIT 3 EXAMINATION -- Ch. 10, 11, 12, and Trigonometry Section</td>
<td>Review and prepare for Final Examination</td>
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<tr>
<td>8/12/10</td>
<td>Trigonometry Section 4.1a and 4.1b</td>
<td>• Complete MML 4.1a and 4.1b</td>
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<td>Review for Final Exam</td>
<td>• Prepare for Final Examination</td>
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<tr>
<td>8/16/10</td>
<td>FINAL EXAMINATION</td>
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NOTES:
1. Friday, July 30, 2010 is the last day to withdraw without a grade, to change a credit course to an audit course.