

### MATH 1215: Intermediate Algebra Fall 2021 Instructor: Michelle Godfrey Email: shosho@unm.edu MECS Division Chair: Elaine W. Clark <u>ewclark@unm.edu</u> 3 Credit Hours

Sect.	CRN	Class Time	Days	Location	MML Course Code
503	70505	1:30 PM – 2:45 PM	Tues/Thurs	Zoom online	godfrey06647

### Zoom Room Information: Tues & Thurs 1:30PM – 2:45PM

- Join Zoom Meeting: https://unm.zoom.us/j/95353182614
- Meeting ID: 953 5318 2614
- Dial by location: +1 346 248 7799 US (Houston)

### Instructor Led Help Session Hours via Zoom: Tues & Thurs 12:00pm - 1:30PM

- Join Zoom Meeting: <u>https://unm.zoom.us/j/95866475929</u>
- Meeting ID: 958 6647 5929
- Dial by location: +1 346 248 7799 US (Houston)

**COURSE DESCRIPTION**: This course is a study of linear and quadratics functions, an introduction to polynomial, absolute value, rational, radical, exponential, and logarithmic functions. Development of strategies for solving single variable equations and contextual problems. (*3 Credit Hours*).

**Prerequisites:** Appropriate placement score or a grade of C or better in Math 100 or Math 022 or FYEX 1010 or ISM 100 or ACT Math =>18 or SAT Math Section =>490 or ACCUPLACER Next-Generation Advanced Algebra and Functions =>228, or QRAS=>248, or Arithmetic=>285. Check with your adviser to make sure you meet the requirements.

**COURSE OBJECTIVES:** In this course, we will explore linear functions, systems of linear equations, linear inequalities, polynomials and factoring, rational functions, and radical functions, and we will introduce exponential and logarithmic functions. A complete list of the Student Learning Objectives for this course is given at the end of this syllabus.

### TECHNICAL SKILLS

To participate and succeed in this class, you will need to be able to perform the following basic technical tasks:

• Use UNM Learn (help documentation located in the "How to Use Learn" link on the left course menu and at <u>Online Student Documentation</u>). Also, UNM-Valencia provides a Blackboard Learn Jumpstart self-learning module to give you practice with the most commonly used tools in UNM Learn. Ask your instructor if you do not see the UNM-Valencia Blackboard Learn Jumpstart in your list of classes in UNM Learn.

<sup>&</sup>lt;sup>1</sup> <u>http://online.unm.edu/help/learn/students/</u>

- Use email including attaching files, opening files, downloading attachments
- Copy and paste within applications including Microsoft Office
- Open a hyperlink (click on a hyperlink to access a website or online resource)
- Use Microsoft Office applications
  - Create, download, update, save and upload MS Word documents
  - Download, annotate, save and upload PDF files
- Use the in-course web conferencing tool (Collaborate Web Conferencing software in UNM Learn) or use Zoom or another web conferencing tool
- Download and install an application or plugin required for participating in web conferencing sessions

# **TECHNICAL REQUIREMENTS**

### Computer

- A high-speed Internet connection is highly recommended.
- Supported browsers include Chrome, Firefox, or Safari. Preferred operating systems are Windows or Apple.
- Any computer capable of running a recently updated web browser should be sufficient to access your online course. However, bear in mind that processor speed, amount of RAM, and Internet connection speed can *significantly* affect performance. *Some programs that use mathematics will not work well on mobile devices such as smartphones or tablets.*
- Microsoft Office products are available free for all UNM students (more information on the <u>UNM IT</u> <u>Software Distribution and Downloads page<sup>2</sup></u>)
- Please update your contact information in Loboweb: <u>MyUNM Login<sup>3</sup></u>. When you log into MyUNM, Enter LoboWeb. Click on the Personal Information link to make sure your contact information is up to date.
- Laptops may be available for checkout for the Fall semester from the <u>UNM-Valencia Library</u><sup>4</sup>. Contact the librarians for more information.

# Web Conferencing

Web conferencing will be used in this course for office hours and scheduled individual meetings For the online sessions, you will need:

- A USB headset with a microphone. Headsets are widely available at stores that sell electronics, at the UNM Bookstore or online.
- A high-speed internet connection is highly recommended for these sessions. A wireless Internet connection may be used if successfully tested for audio quality before web conferencing.
- You should also dress as you would when attending an in-person meeting, even if you do not turn on your video camera

# **Technical Support**

- For UNM Learn Technical Support: (505) 277-0857 (24/7) or use the "Create a Tech Support Ticket" link in your course.
- For UNM-Valencia IT Support: (505)925-8911
- For UNM Web Conference Technical Help: (505) 277-0857

<sup>&</sup>lt;sup>2</sup> <u>http://it.unm.edu/software/index.html</u>

<sup>&</sup>lt;sup>3</sup> <u>http://my.unm.edu/home</u>

<sup>&</sup>lt;sup>4</sup> <u>http://valencia.unm.edu/library/index.html</u>

### **COURSE MATERIALS:**

Textbook: "Developmental Mathematics," 2nd edition, by Sullivan, Struve, Mazzarella.

**<u>Required:</u>** Appropriate MyMathLab (MML) access code (do not purchase a generic code, the code is book specific). You may purchase the 18-week access code for a lower price, but you *cannot* upgrade to the lifetime code once you purchase the restricted one.

"Developmental Mathematics," 2nd edition, by Sullivan, Struve, Mazzarella. There will be an e-text included with your MyMathLab access purchase.

**Optional:** You may "upgrade" your access by purchasing a hard copy of the book directly from Pearson for an additional cost (between \$50 and \$60 before tax). There will be copies of the book on reserve for use in the library (you will not be able to take the book from the library home).

### **Other Requirements:**

- Administrative rights to download free software or plug-ins or add-ons on the computer you plan to use for this course. The first time you log in to the MyMathLab (MML) homepage, run the Installation Wizard to ensure you have all the appropriate software installed. Also, make sure you are allowing popups.
- Pearson account. If you have used any of the Pearson My Lab products before, you can use the same account you created the first time you used it. Otherwise, you can create an account when you register in MyMathLab (MML) for this class. Register by going to <u>mymathlab.com</u>.
- Standard or Scientific calculator. It cannot be an app on your cell phone.
- Adobe Reader (a free download), preferably version 11.0 or better.

### ATTENDANCE/PARTICIPATION

#### **Instructor Response Time**

I routinely check the course and my emails, Monday (8 am) – Friday (noon), and sometimes on the weekend. You can anticipate a 24 to 48-hour response from me, Monday – Thursday. I will try and respond to all weekend (Friday afternoon to Sunday) emails and postings by noon on Monday or earlier

#### **Procedures for Completing Coursework**

- Weekly assignments must be completed not later than the due date for full credit. You must notify your instructor if you wish to work on an assignment that is past due. A 30% penalty may be incurred for late pending on circumstances.
- All written work needs to be submitted online. If you have difficulty using a tool to complete work, notify your instructor immediately and/or use the "Create a Tech Support Ticket" link in the Course Menu.

### **Expectations for Participation**

- Plan to spend a minimum of 9 to 12 hours per week for this class. There is no guarantee you will pass if you dedicate this amount of time, you still need to learn the material and use your time wisely, but those who pass generally are the ones who spend the time needed to do the work to learn the material.
- students are expected to learn how to navigate in Learn
- students are expected to utilize Zoom
- students are expected to keep abreast of course announcements
- students are expected to use their UNM email as opposed to a personal email address and are expected to check their UNM email regularly

- students are expected to keep the instructor informed of class-related problems or problems that may prevent the student from full participation
- students are expected to address technical problems immediately
- students are expected to always observe course netiquette

### Netiquette

One of the overriding principles in online conversations is to "craft your responses effectively." It is sometimes difficult to remember that real people are reading posted messages. It is especially true of online communication where others do not have the opportunity to see body language or hear the tone of voice; therefore, misunderstandings are more likely.

Please, follow these guidelines in *all* your online responses and discussion postings.

- Honor everyone's right to an opinion.
- Respect the right of each person to disagree with others.
- Respond honestly but thoughtfully and respectfully; use language that others will not consider foul or abusive. You may also use emoticons to convey a lighter tone.
- Respect your privacy and the privacy of others by not revealing information that you deem private and which you feel might embarrass you or others
- Be prepared to clarify statements that might be misunderstood or misinterpreted by others.

### A Special Note about Anger

- Do not send messages that you have written when you are angry, even anonymous ones. In the online world, angry messages are known as "flaming" and are considered bad behavior. Venting and flaming are two different things. It is possible to vent without becoming "ugly." Stick to the facts of what is causing you frustration.
- Do not send messages written in the upper case; this is the visual equivalent of SHOUTING. It is considered aggressive and is regarded as bad behavior. If you ever feel like shouting a message, take a deep breath, and wait until you have calmed down before responding. Then, respond calmly and factually.

How to complete your work for this class: Below is how you will progress through the material:

### Attendance/Lecture: (10% or overall grade)

- You are expected to attend the weekly zoom lectures. You will receive 15 points towards your attendance grade for each day.
- The expectation in this class is that you will have your video on. If you have a compelling reason for wanting to keep your video off, please let me know privately. Also, you should dress for class as if you were attending in person.
- You are expected to participate each week in learning the material covered

**Absences:** I do not require you to give me documentation for missing up to 3 class days. Even if you miss class, you are still expected to complete the assignments posted in MML. You will only be excused for any in-class activity we did.

#### Here are the reasons you may be dropped from the class:

• If you miss the first week of the semester – If you do not attend the zoom lectures and/or never log into UNM Learn or communicate with the instructor.

- If you are not registered in MML and completing assignments by the end of the first week. You will be dropped if you do not complete, sign, and turn in the **course contract** found in the **Start Here** Module by the due date.
- If you fall behind deadlines by more than two weeks.

If you added late, documentation of absences starts the day you registered for the class.

Do not depend on me to drop you if you decide not to take the class. You are responsible for withdrawing if you decide not to complete the course.

**MyMathLab Homework (15% of your overall grade):** Online homework is assigned nearly every week based on the course outline. Weekly assignments in MyMathLab must be completed not later than the indicated date in MML.

Written Homework: (20% of your overall grade): Each unit will have a separate written homework and must be completed no later than the beginning of class as indicated on the outline. The purpose of the written homework is to determine if you are understanding the concepts correctly. Illegible homework will not be graded.

**Projects:** (20% of overall grade). During the semester, projects will be assigned in each unit. If available, you may have some class time to begin or work on the project, but it will be designed for you to complete at home. If you are working on this project in groups, you must demonstrate that you contributed to the group answer. I also require *individual* submissions of the project, not one group paper. The projects are worth 20% of your overall course grade.

### Exams: (15% of overall grade)

There will be two exams during the semester that will be given during class. These will correspond to the final exams for Math 1215X and Math 1215Y, respectively. If you are ill or an unexpected event happens and cannot make it to the exam, you have one week to make it up. The exams are worth 15% of your overall course grade.

#### Final Exam: (20% of overall course grade)

• The final is a departmental exam that will test all, or nearly all, of the learning objectives for this course. You will be given a formula sheet for the final, and you can use a calculator. You can NOT use your phone for a calculator. You are allowed to take the final only once.

You must score a 70% or better on the Final Exam to earn a passing grade in this class. You must also have a 70% course average to earn a passing grade, but this should not be a problem if you have been completing your work and showing progress. The final exam will be 20% of your overall course grade.

### **COURSE AVERAGES:**

Attendance/Class Participation	10%
MyMathLab Homework	15%
Written Homework	20%
Projects (13)	20%
Term Exam (2)	15%
Cumulative Final Exam*	20%

\*You must score at least a 70% on the final exam *and* have a course average of 70% or better to earn a passing grade in the course.

### **GRADING SCALE:**

Letter Grade	Final Exam score AND Course Weighted Average
Α	70% or better AND 90% or better
В	70% or better <b>AND</b> 80% to 89%
С	70% or better <b>AND</b> 70% to 79%
CR	70% or better AND 70% or better
NC	Less than 70% AND Any course grade

In the case where a student is unsuccessful in the course, if a grade is required for financial aid, please inform the professor.

DO NOT consider any of the grades posted in MyMathLab as representing your actual grade.

SUPPORT: If you are struggling in this course, do not be afraid to ask for help!

- Ask My Instructor: Please use the Ask My Instructor button in MyMathLab. This button is available in the computational assignments and the quizzes and sends a message to my email with a link to the question. Do not just send the link; tell me where in the problem you are struggling.
- Office Hours: See my office hours listed at the beginning of this syllabus. Feel free to come by or log in for online office hours or make an appointment to get help.
- Form study groups: You may work together with other members of our class.
- Free Tutoring: The Math Center at Valencia campus has free tutoring and open labs. Call 505-925-8907 for more information. CAPS on main campus also provides tutoring for which I can get documentation.
- Student Services: There are various services provided in our Student Services Department. See below about equal access. Also, we have a testing center, advising, and career placement available: <u>Valencia</u> <u>Student Services</u>

# **OTHER IMPORTANT INFORMATION:**

**Equal Access:** In accordance with University Policy 2310 and the Americans with Disabilities Act (ADA), academic accommodations may be made for any student who notifies the instructor of the need for an accommodation. It is imperative that you take the initiative to bring such needs to the instructor's attention, as I am not legally permitted to inquire. Students who may require assistance in emergency evacuations should contact the instructor as to the most appropriate procedures to follow. Contact Accessibility Resource Center at 277-3506 for additional information.

If you need an accommodation based on how course requirement interacts with the impact of a disability, you should contact me to arrange an appointment as soon as possible. At the appointment, we can discuss the course format and requirements, anticipate the need for adjustments and explore potential accommodations. I rely on the Disability Services Office for assistance in developing strategies and verifying accommodation needs. If you have not previously contacted them, I encourage you to do so.

If you are a Valencia campus student, contact Equal Access Services at Valencia Campus, Cheryl Dilger at (505)925-8910 or <u>Valencia Student Services</u>. If you are a main campus student, you can receive documentation from the main campus Accessibility Resource Center. I will not guarantee accommodation without the appropriate documentation.

**Collegial Behavior:** Since I assume you are all adults, I will expect respectful adult behavior. Engaging in disruptive or unruly behavior could result in your being asked to leave. At that time, you will be counted absent, and a referral will be sent to the Associate Dean of Student Services. Continuing to behave in this way could result in your being dropped from the course. Disruptive or unruly behavior includes but is not limited to:

- texting or talking on your cell phone at any time during class,
- continually talking with your neighbor when we are not working on a group activity,
- working on homework from another class,
- reading material or watching media on a mobile device not related to this course or at an inappropriate time,
- refusing to participate in the class activities.

### **Academic Integrity**

Having academic integrity is paramount to your success in any class. Plagiarism or cheating is not tolerated. Any instance of this will result in a grade of zero for that assignment. Here is the link to the UNM Academic Dishonesty Policy:

https://policy.unm.edu/regents-policies/section-4/4-8.html. The policy states:

Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, up to and including dismissal, against any student who is found guilty of academic dishonesty or who otherwise fails to meet the expected standards. Any student judged to have engaged in academic dishonesty in course work may receive a reduced or failing grade for the work in question and/or for the course.

### Academic Dishonesty is defined as:

"Academic dishonesty" includes, but is not limited to, dishonesty in quizzes, tests, or assignments; claiming credit for work not done or done by others; hindering the academic work of other students; misrepresenting academic or professional qualifications within or without the University; and nondisclosure or misrepresentation in filling out applications or other University records.

**Title IX Statement**: In an effort to meet obligations under Title IX, UNM faculty, Teaching Assistants, and Graduate Assistants are considered "responsible employees" by the Department of Education (see pg. 15 - http://www2.ed.gov/about/offices/list/ocr/docs/qa-201404-title-ix.pdf). This designation requires that any report of gender discrimination which includes sexual harassment, sexual misconduct and sexual violence made to a faculty member, TA, or GA must be reported to the Title IX Coordinator at the Office of Equal Opportunity (oeo.unm.edu). For more information on the campus policy regarding sexual misconduct, see: https://policy.unm.edu/university-policies/2000/2740.html

### COVID-19 Statement: UNM Administrative Mandate on Required Vaccinations

All students, staff, and instructors are required by <u>UNM Administrative Mandate on Required Vaccinations</u> to be fully vaccinated for COVID-19 as soon as possible, but no later than September 30, 2021, and must provide proof of vaccination or of a UNM validated limited exemption or exemption no later than September 30, 2021 to the <u>UNM vaccination verification site</u>. Students seeking medical exemption from the vaccination policy must submit a request to the <u>UNM verification site</u> for review by the UNM <u>Accessibility</u> <u>Resource Center</u>. Students seeking religious exemption from the vaccination policy must submit a request to the <u>UNM verification site</u> for review by the <u>Compliance, Ethics, and</u> <u>Equal Opportunity Office</u>. For further information on the requirement and on limited exemptions and exemptions, see the <u>UNM Administrative Mandate on Required Vaccinations</u>.

### UNM Requirement on Masking in Indoor Spaces

All students, staff, and instructors are required to wear face masks in indoor classes, labs, studios and meetings on UNM campuses, see <u>masking requirement</u>. Vaccinated and unvaccinated instructors teaching in classrooms must wear a mask when entering and leaving the classroom and when moving around the room. When vaccinated instructors are able to maintain at least six feet of distance, they may choose to remove their mask for the purpose of increased communication during instruction. Instructors who are not vaccinated (because of an approved medical or religious exemption), or who are not vaccinated yet, must wear their masks at all times. Students who do not wear a mask indoors on UNM campuses can expect to be asked to leave the classroom and to be dropped from a class if failure to wear a mask occurs more than once in that class. With the exception of the limited cases described above, students and employees who do not wear a mask in classrooms and other indoor public spaces on UNM campuses are subject to disciplinary actions.

<u>Communication on change in modality</u>: The university may direct that classes move to remote delivery at any time to preserve the health and safety of the students, instructor and community. Please check your email and your UNM Learn site regularly for updates about our class, and please check <u>https://bringbackthepack.unm.edu</u> regularly for general UNM updates about COVID-19 and the health of our community.

<u>Acceptable masks and mask wearing in class</u>: A two-layer mask that covers the nose and mouth and that is cleaned regularly is acceptable, as are disposable medical masks, KN95, KF94, FFP1 and FFP2 masks. A face shield is not sufficient protection. It is vital that you wear your mask correctly, covering your nose and mouth. Removing your mask for an extended period to eat or drink in class violates the university mask requirement and endangers others.

<u>Consequences of not wearing a mask properly</u>: If you don't wear a mask, or if you do not wear a mask properly by covering your nose and mouth, you will be asked to leave class. If you fail to wear a mask properly on more than one occasion, you can expect to be dropped from the class. If you insist on remaining in the classroom while not wearing a mask, class will be dismissed for the day to protect others and you will be dropped from the class immediately.

The instructor will try to have a few disposable masks available in the classroom on a first-come, first-served basis.

# FOR MILITARY-CONNECTED STUDENTS

There are resources on campus designed to help you succeed. You can approach any faculty or staff for help with any issues you may encounter. Many faculty and staff have completed the GREEN ZONE training to learn about the unique challenges facing military-connected students. If you feel that you need help beyond what faculty and/or staff can give you, please reach out to the Veterans Resource Center on main campus at 505-277-3181, or by email at <u>vrc@unm.edu</u>. The Veterans Coordinator at UNM-Valencia is in the Student Services Office, at 505-925-8560.

# Semester Deadlines

- Fall 2021–16-week classes (deadlines will be different for first and second 8-week classes)
- Monday, August 23: First day of class, classes available in Blackboard Learn
- Friday, September 3, by 5:00 pm: Last day to add a class or to change credit hours or grade mode in LoboWEB.
- Monday, September 6: Labor Day, no classes
- Friday, September 10: Last day to drop without "W" grade and with 100% refund on LoboWEB

- October 14-15 Fall Break, no classes
- Friday, November 12: Last day to drop *without* Dean's permission on LoboWEB. Will receive "W" grade and will be responsible for tuition for the course.
- November 25-26: Thanksgiving Break, no classes
- Friday, December 10: Last day to drop with the permission form.
- December 13-18: Final Exams

#### Math 1215: Intermediate Algebra (Fall 2021) (Course outline is subject to change)

Week	Dates	Sections / Topics	Assignments Due	
1	8/23 - 8/27	Unit 1: Sects. 8.3 & 8.4	MML Unit 1 homework	
2	8/30 - 9/3	Unit 2: Sects. 8.8 & 8.6	Written Unit 1 homework MML Unit 2 homework Project 1	
	9/6	Labor Day Holiday – NO CLASS		
3	9/6 - 9/10	<i>Unit 3:</i> Sects. 9.1, 9.2, 9.3, 9.4, 9.5	Written Unit 2 homework MML Unit 3 homework Project 2	
4	9/13 - 9/17	Unit 4: Sects. 9.6 & 10.1	Written Unit 3 homework MML Unit 4 homework Project 3	
5	9/20 - 9/24	Unit 5: Sects. 10.2 & 10.3	Written Unit 4 homework MML Unit 5 homework Project 4	
6	9/27 - 10/1	<b>Test #1</b> Unit 6: Sects: 11.1, 11.2, 11.3, 11.4	Written Unit 5 homework Project 5	
7	10/4 - 10/8	<i>Unit 6 cont: Sect: 11.6</i> <i>Unit 7:</i> Sects. 12.1, 12.2, 12.3	MML Unit 6 homework Written Unit 6 homework Project 6	
8	10/11 - 10/13	Unit 8: Sects. 14.1, 14.2	MML Unit 7 homework Written Unit 7 homework Project 7	
	10/14 -10/15	Fall Break No Class		
9	10/18 - 10/22	<i>Unit 8 cont.: Sects. 14.3, 14.4</i> <i>Unit 9:</i> Sects. 15.1, 12.6,	MML Unit 8 homework due	
10	10/25 -10/29	<i>Unit 9 cont:</i> Sects. 16.2, 16.5	Written Unit 8 homework due MML Unit 9 homework due Project 8	
11	11/1 - 11/5	<i>Test #2</i> <i>Unit 10:</i> Sect. 13.1, 13.2, 13.3	Written Unit 9 homework due Project 9	
12	11/8 - 11/12	<i>Unit 11:</i> 13.5, 13.7	MML Unit 10 homework due Written Unit 10 homework due	

			Project 10
13	11/15 -	<i>Unit 11 cont. Sect.</i> : 14.7	MML Unit 11homework due
	11/19	<i>Unit 12:</i> Sec 15.2, 15.3	
14	11/22 - 11/24	<i>Unit 12 cont:</i> Sects. 15.4, 15.8	Written Unit 11 homework due Project 11
	11/25 -11/29	Thanksgiving Holiday NO CLASS	
15	11/29 - 12/3	<i>Unit 12 cont:</i> Sects. 15.8 <i>Unit 13:</i> 17.2	MML Unit 12 homework due Written Unit 12 homework due Project 12
16	12/6 - 12/11	<i>Unit 13 cont:</i> 17.3 <b>Review</b>	MML Unit 13 homework due Written Unit 13 homework due Project 13
	12/13 -12/18	Final Exams Week	

### MATH 1215 COURSE STUDENT LEARNING OUTCOMES:

Upon successful completion of the course, students will be able to:

- A. Demonstrate appropriate use of basic function language and notation.
  - 1. Communicate or present mathematical concepts using correct mathematical notation and terminology.
  - 2. Correctly use function notation and vocabulary related to functions.
  - 3. Determine function values for given domain values and determine domain values for given function values.
  - 4. Determine domains for specific functions.
- B. Convert between equivalent forms of algebraic expressions.
  - 1. Simplify expressions using properties of exponents.
  - 2. Add, subtract, and multiply polynomials.
  - 3. Rewrite line equations in different forms (slope-intercept, point-slope, standard)
  - 4. Factor some types of polynomials.
  - 5. Simplify radical expressions.
  - 6. Simplify rational expressions.
  - 7. Rewrite exponential functions in logarithmic form and vice versa.
- C. Solve single-variable equations of the types listed above.
  - 1. Solve for a single variable in a proportion.
  - 2. Solve for a single variable in a linear equation.
  - 3. Solve for a specified variable in a formula.
  - 4. Solve quadratic equations using factoring, quadratic formula, and the square root method.
  - 5. Solve equations containing rational expressions.
  - 6. Solve equations containing radical expressions.
  - 7. Solve absolute value equations in one variable.
  - 8. Solve exponential and logarithmic equations using equating bases.
- D. Interpret and communicate algebraic solutions graphically and numerically.
  - 1. Determine equations for lines in the three forms slope-intercept and point-slope.
  - 2. Sketch the graphs of linear functions.

- 3. Interpret slope in relation to variable coefficients and as a rate of change.
- 4. Graph linear inequalities in one variable on a number line and write corresponding interval notation.
- 5. Determine when linear equations represent parallel and perpendicular lines.
- 6. Sketch graphs of quadratic functions.
- E. Demonstrate contextual problem-solving skills that include setting up and solving problems and interpreting solutions in context.
  - 1. Determine linear equations from application problems and solve.
  - 2. Set up a linear proportion from an application problem and solve.
  - 3. Analyze solutions to application problems and give them contextual meaning.
  - 4. Determine the three types of outcomes from a system of linear equations in the context of what the graphs look like (terminology about consistent/inconsistent or dependent/independent not emphasized)
- 5. Determine a system of linear equations from an application problem and solve if possible.
- F. Apply appropriate problem-solving methods from among algebraic, graphical, and numerical.
  - 1. Perform unit conversions.
  - 2. Solve linear inequalities in one variable.
  - 3. Simplify expressions written in scientific notation.
  - 4. Simplify multiplication and division problems using scientific notation.
  - 5. Apply solution methods learned to application problems.
  - 6. Solve systems of two linear equations graphically and algebraically.
  - 7. Solve problems including percent
  - 8. Perform operations with radical expressions.
  - 9. Perform operations with rational expressions.
  - 10. Solve absolute value inequalities in one variable.

Completing Math 1215 meets the prerequisites for Math 1130, Math 1350, Math 1220, and some science classes.