# MATH 120-501 -- Monday & Wednesday 10:30 - 11:45 AM in A124

Instructor: Eva RiveraEmail: eriveral@unm.eduOffice: A-123Phone: 925-8644XYZ Homework Course Code: 5797File Hours:Office Hours:STEM Center: MW 8:00 am - 9:00 am or by appointment

### **COURSE DESCRIPTION:**

Math 120 covers linear equations and inequalities, polynomials, factoring, exponents, radicals, fractional expressions and equations, quadratic equations, perimeters, areas of simple geometric shapes, and logarithms. There is an emphasis on problem solving skills. Math 120 is acceptable as credit toward graduation in some programs but not acceptable to satisfy the UNM Core Curriculum or New Mexico Lower-Division General Education Common Core Curriculum requirement in Mathematics. Grade option: A, B, C, CR/NC. **Prerequisites/placement**: Successful completion of MATH 100 (C or CR)or minimum pre-algebra COMPASS score of 57 or algebra COMPASS score of 34, or math ACT ≥ 19, or math SAT ≥ 450.

### **Course Objectives:**

In this course, we will explore linear functions, systems of linear equations, inequalities, polynomials and factoring, rational functions, and radical functions, and we will introduce exponential and logarithmic functions. Often in a mathematics course the emphasis in lecture is on acquisition of skills. In this course we will focus mainly on constructing meaning. What this means in terms of your responsibilities and what will happen during class time is explained below.

## Student Learning Outcomes in regard to skills acquisition:

- Upon successful completion of this course, students will be able to:
- 1. Sketch the graphs of linear, quadratic, and exponential functions.
- 2. Solve systems of two linear equations.
- 3. Solve quadratic equations using factoring, quadratic formula, and the square root method.
- 4. Solve equations containing rational expressions.
- 5. Perform operations on polynomials and factor certain types of polynomials.
- 6. Solve polynomial equations by factoring.
- 7. Correctly use function notation and vocabulary related to functions.
- 8. Find the value of a function for a given domain value.

## Student Learning Outcomes in regard to conceptual understanding:

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

- 1. Interpret slope in relation to variable coefficients and as a rate of change.
- 2. Apply solution methods learned to "real-world" problems.
- 3. Analyze solutions and give them contextual meaning.

4. Actively and effectively work in groups to solve problems and increase understanding of concepts, drawing on the skills and knowledge of all group members.

#### **REQUIRED MATERIALS**:

• **Textbook:** Intermediate Algebra: Concepts with Applications, by *Charles P. McKeague*.

- XYZ Homework All-Access E-Content Pass: This code will provide you access to all of the online materials for the course, including homework assignments and quizzes that will be required for the course. This code can be purchase at the bookstore or through the following website: http://www.xyztextbooks.com/store.
- Notebook, pencil, highlighter, notecards, calculator.
- **Calculator:** A scientific calculator will be desired. Students may use a calculator for quizzes and exams. No graphing calculators and/or phones will be allowed on any exams or quizzes, unless otherwise announced. **Students cannot use their phone as a calculator during a quiz or exam AND students cannot share a calculator**.

Grading Scale (Note: + and – of grades are possible but only if of benefit to the student)

А	90 – 100%	CR	Credit 72 – 100%
В	80 – 89%	NC	No Credit Less than 72%
С	70–79%		
D	60–69%		
F	< 59%		
Atte	endance and Class Participation		10%
Projects/Class Activities			10%
MML Homework			10%
Quiz	zes		10%
Unit	t Exams		30%
Cum	nulative Final Exam*		30%

\* You must receive at least a 70% on the final and have a 72% overall course average to pass the <u>course</u>. This is not negotiable.

## IMPORTANT DATES with respect to this class: Final Exam: Wednesday, July 22, 2015 in A-124 from 9:30 am – 11:30 am

**ATTENDANCE POLICY**: If a student misses 2 classes in the first two weeks or 3 consecutive class periods or 5 total, the student may be dropped from the class. Each absence will result in a 5% reduction in the Attendance & Participation grade. The student bears full responsibility for the material and procedural information covered in class.

<u>UNM'S POLICY ON HONESTY IN ACADEMIC MATTERS</u>: 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, including dismissal, against any student who is found responsible for academic dishonesty. Any student who has been 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 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; and misrepresenting academic or professional qualifications within or outside the University.

**DISABILITY STATEMENT:** If you have a documented disability, please provide me with a copy of your letter from Equal Access Services as soon as possible to ensure that accommodations are provided in a timely manner.

**Homework:** Homework assignments are done and graded on XYZ Homework. Typically, the assignments are posted right after each lecture. You should expect to spend 6-9 hours in addition to the lectures each week to study for this course and complete the homework assignments. The due date of each homework assignment is specified on XYZ Homework. You may complete your homework after the due day, but you will be penalized for a 20% grade deduction for the questions submitted after the due day.

**Project:** You will be given some group projects to work on during the semester. These projects will help you to discover how algebra is applied to other science studies and engineering fields.

**Quizzes:** There will be a number of quizzes given throughout the semester. I will NOT give make-up quizzes, but I will drop your lowest quiz grade at the end of the semester.

**Unit Exams:** There will be three unit exams. I will only give make up unit exams if you missed the exam for solid reasons such as emergencies, car accidents etc. You will need to show a formally documented proof such as a doctor's note or a police report in order to be granted a make-up unit exam.

**Math 106:** You are strongly recommended to enroll into MATH 106, which is a one credit hour class that offers extra help and practice to students taking math 120.

#### Class content/lecture/discussions CD/Demonstrations Lab Skills Homework

Monday 6/1	Review Syllabus and forms Chapter 1 & 2	Principals of the nursing Assistant		Chapters 1+2 Look up C-diff, describe what it is, Is it preventable?Who is at risk?
Tues 6/2	Videos/CD Laboratory skills	Bedmaking Lifting, Moving & Positioning patients ROM	Orientation to skill Lab Infection control measures- handwashing/gloves/etc Making Unoccupied/occupied bed Positioning of patients: Pt transfer; Begin ROM exercises Ambulation	Chpt 3,4,5,6 Question: You have a patient that is from a foreign country, and in a great deal of abdominal pain. They need personal care multiple times a day and are very afraid of you. How would treat this patient? Would you need to change anything you would normally do?
Wed. 6/3	Chpt 3 "Communication" understanding the dynamics of open versus closed communication tactics Chpt 4 "Communication Challenges" Chpt 5 "Diversity and Human Needs and Development" Chapter 6 "Infection Control"		Class Assignment: What rights has OBRA assured residents? How can a CNA assure these rights are respected? <b>*Ethics worksheet</b> <b>*Growth and Development</b> <b>Exercise</b>	Chpt 7,9,18 *Describe how using proper body mechanics can help the CNA and the patient* Describe decubitis ulcers- stages and risks involved. How can decubiti be prevented? Study abbreviations for quiz!
Monday 6/8	<b>**Quiz on Abbreviations</b> Chptr 18 "The Integumentary System" Chptr7 "SAfety and body Mechanics"	Grooming- dressing patients Bed Bath; Perineal Care for patients	*Bring Combs/hair brush for personal care tomorrow*	Chapter 12 Essay questions: Who needs personal care? What evaluation skills can the CNA complete during personal care? What rights are observed during personal care?
Tues. 6/9	Chpt 12 "Personal Care"		Range of Motion Exercises; Personal Care; Bathing-Full and Partial Hand/Foot care, Hair Care; Gown and Pant change, Compression stockings; Shaving; Occupied Bed	Chapter 19, 20 Essay question: Describe Congestive Heart failure. Who is at risk? Essay question: What is COPD, how does it adversely affect patients.

Wed. 6/10	Chptr 19 "The Circulatory System" Chpt 20 "The Respiratory System"			Chapter 22 What do Parkinson's disease, Multiple Sclerosis and Alzheimer's Disease have in common? What are tasks the CNA will perform with these patients? Name at least five.
Monday 6/15	Chptr 20 Continued if needed. Chpt 22 " The Nervous System" Exam #1	Vital signs: Temperature Pulse/Resp. blood pressure		Chapter 13-be prepared to perform vital signs tomorrow! Essay question: What is a normal vital sign-who determines what is normal for patient? What abnormal vital sign would require the Dangle Position for safety? Describe the position and the reason to use it.
Tues. 6/16	Chpt 13"Vital Signs"		Radial/Pedal/Apical/Brachia l pulses; Pain Level/O2 sat Blood pressure Respirations Temperature- oral/axillary/otic/temporal	Chapter 17, 23 Essay question: What is the difference between hypo and hyper glycemia? Who is at risk? What are some side effects of Diabetes Mellitis? *Study for Medical Term quiz

Wed. 6/17	Chpt 23 "The Endocrine System" **Quiz on Medical terminology			Chapter 8, 16 Essay question: What causes a UTI? Could it be avoided? How? *What is incontinence training, how can incontinence affect your patient. Can the CNA help the incontinent patient-How?
Mon. 6/2	2No Class			
Tues.6/23	3 <mark>No Class</mark>		$\vdash$	
Wed. 6/24	Chpt16 "The Urinary System" Chptr 8 "Emergency Care First Aid and Disasters" Quiz on Abbreviations/Medical terms	Skills practice **Bring food/tooth brush and dental floss for tomorrow's Lab for practice purposes.		Chapter15 Essay Question;What is enteral Feeding? Who is at Risk for aspiration?What are CNA considerations for the patient with dysphagia?
Mon. 6/2	9 <mark>Chapter 15 "The Gastrointestinal System"</mark> Exam #2	GI disorder exercise		Chapters 21, 25 and 27

Tues 6/30	Laboratory Skills Practice		Assist with eating /drinking;Oral Hygiene;Catheter Care;I&OBedpan/bedside commode; Brief change/perineal care.Height and Weight Measure	Chapters14&26 What is SOAP charting? Can CNA's chart? What is a flow sheet?
wed. 7/1	Chpt 21 'The Musculoskeletal System' Chpt 27 "Death and Dying-End of life		**Bring Combs/hair brush; food (pudding/jello etc); tooth brush and dental floss for tomorrow's Lab EXAM	
7/6	Review			
7/7	Skill Exam-		Skills to be assigned**Must pass skill exam to attend Clinical Experience	
7/8	Exam #3			
	Clinical Dates 7/17, 7/20, 7/21, 7/22. Belen Meadows			
7/27	Final written exam @ 1300			