# MATH1100.300: Algebra

2014 Fall

INSTRUCTOR: Marc Grether	<b>OFFICE: GAB</b> 416 <b>OFFICE PHONE:</b> (940) 565-				
	4701 (email preferred)				
<b>OFFICE Hours:</b> MWF: noon-2, Tues: 9:30-1:30 other times by appointment only	EMAIL: grether@unt.edu  May not be used in lieu of attendance. Include course name,				
	number and section and your full name in the subject header.				
	Email without this information may not get opened. Email				
	will be returned in a timely manner, but may occasionally				
	take up to two (2) business days.				
CLASS MEETS: MWF 11am-11:50am, GAB 105	FINAL EXAM DATE AND TIME:				
LABS MEET: Location for All labs is GAB 511	Tuesday December 9, 4:00-6:00; Room Location, TBA				
301: Donna House, Monday, Noon-1:50am	http://registrar.unt.edu/exams/final-exam-schedule				
302: Donna House, day, Noon-1:50am					
303: Donna House, Friday, Noon-1:50am					
304: Jared Hilliard, Monday, 6pm-7:50pm					
COURSE DESCRIPTION 21 (202) Deliver to 1 - 11 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1					

**COURSE DESCRIPTION:** 3 hours (3;0;2) Designed to build technical proficiency in algebra for students who will need strong algebra skills in a higher level mathematics course. Study of polynomial, radical, rational, logarithmic and exponential functions with applications; building functions from data; systems of equations. Note that MATH 1100 at UNT does not satisfy the mathematics component of the core curriculum. Students who feel they acquired solid algebra skills in high school are strongly encouraged to take the mathematics placement exam to begin in a higher-level mathematics course. Prerequisite(s): Two years of high school algebra and one year of geometry, and consent of department; or a grade of C or better in MATH 1010, MATH 1581 or MATH 1681. A grade of C or better in MATH 1100 is required when MATH 1100 is a prerequisite for other mathematics courses.

**MyMathLab** (MML) required: The course content (assignments, help tools, textbook, etc.) will be delivered through the online platform MML. Temporary (unpaid) access is available to register immediately. You must purchase MML by the end of the temporary 14-day period. Students who do not purchased MML by the end of the 14-day period may lose credit for all work previously completed in MML AND be administratively dropped with the possibility of no refund. Students will not be given extensions for any missed assignments for any reason. Not having access to MML is not an exception.

**PRINT TEXTBOOK is OPTIONAL:** College Algebra, 3rd Edition, by Ratti & McWaters. MML is an online course delivery platform through which students access and complete assignments. The textbook in electronic form is included in MML. MML may be purchased packaged with textbook, as a stand-alone or directly online at registration.

## **CAMPUS INTERNET ACCESS:**

UNT has many general access computer labs for students, see <a href="http://www.gacl.unt.edu/">http://www.gacl.unt.edu/</a>.

## **ONLINE TUTORING:**

The UNT Learning Center offers an online tutoring system using the AskOnline platform. Go to <a href="www.unt.edu/lc">www.unt.edu/lc</a>, and select the online tutoring button located along the top of the page.

#### **GRAPHING CALCULATOR:**

I 83, TI 83 Plus, TI 84, TI 84 Plus or equivalent, their use will be supported in class. Examples of calculators not allowed: TI-Nspires, TI 92'2 or any other utility with alphanumeric/CAS capabilities ARE NOT permitted, nor are any devices which are capable of connecting to other devices or the internet. A calculator may not be shared during an exam.

**ATTENDANCE POLICY:** Class attendance is mandatory. Students are responsible for all information given in class, regardless of his/her attendance. Starting Monday, Oct 6, students may be administratively dropped from the course for nonattendance with a grade of WF. The last day a student may be dropped for nonattendance is Friday, Nov 21. **Six** or more absences in lecture constitute nonattendance.

### **ACADEMIC DISHONESTY:**

Refer to the following university site for the official policy with regards to academic dishonesty. The web site is:  $\frac{\text{http://facultysuccess.unt.edu/academic-integrity}}{\text{http://facultysuccess.unt.edu/academic-integrity}}$ 

<b>EVALUATION:</b>		GRADE ASSIGNMENT:
Lab:	12%	A: [90%, ); B: [80%, 90%); C: [70%, 80%); D: [60%, 70%)
Homework:	18%	F: [0%, 60%)
Quizzes	10%	
In-class Exams	36%	A grade of C or better is required for this course to serve as
Final Exam	24%	prerequisite for any math course.

**GRADE DETERMINATION:** Student grade is determined solely by his/her performance on the evaluation criteria. Grades are not wages; they are not intended to reflect how hard you've worked or the goodness of your intentions. Grades reflect your proficiency of the course content as you have demonstrated them on the evaluation criteria. No extra credit.

FINAL GRADE: Students may access their course grades online via the EIS system: my.unt.edu/grades

#### **DISABILITY ACCOMMODATIONS:**

The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with an accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information see the Office of Disability Accommodation website at <a href="http://www.unt.edu/oda">http://www.unt.edu/oda</a>. You may also contact them by phone at 940.565.4323.

<u>Class notebook:</u> Have a dedicated notebook for this class that you have with you each class meeting and every time that you work on this class. Neatly record every question asked, your work, the correct work and what you learned from the problem. Mark down which problems you want more help on. This is a necessary step for success in this class.

Recommended Keys to Success/Expectations: Students who are successful in math spend a great deal of time and honest effort outside of class along with punctual attendance. Students who are successful come to each class on time and stay the entire class. You are responsible for everything that happens in class. You should come to each lecture and come prepared. Students who are successful spend an hour (or two) after each lecture reviewing the lesson and working on homework problems. They may also meet with a study group several times per week and use the UNT Math Tutor Lab. Successful students work on the assignments consistently every day, instead of waiting until the last minute. They read their textbooks regularly and make learning notes.

Math is not a spectator sport. You will not learn mathematics from watching the instructor or friends display ideas and solve problems. You must try the problems, finish problems, ask questions, correct your mistakes, put concepts in your own words, and practice, practice, practice!! An increase in effort usually results in increases in success.

**Learning Objectives:** Upon successful completion of Math 1100, the student will be prepared to take courses for which Algebra is a prerequisite. The student will also be able to:

- Use algebra to solve real world problems;
- Represent and evaluate basic mathematical information symbolically and graphically;
- Use appropriate technology (graphing calculator) to enhance mathematical thinking and understanding and to solve mathematical problems and judge the reasonableness of the results; and
- Interpret mathematical models such as formulas and graphs.

Math 1100 List of sections to be taught from the Ratti & McWaters Textbook 3ed: Chapters P – 4 and 5.1 - 5.5. See the calendar for more details.

Following are schedule dates of which you need to be aware. Please review these dates and note:

AUGUST 25, MONDAY: Classes begin.

AUGUST 29, FRIDAY: Last day to add/swap a class. Cannot swap up to a higher level class, only down.

**SEPTEMBER 1, MONDAY:** Labor Day – No Classes, University Closed

**SEPTEMBER 8, MONDAY:** Last day to drop a course and receive refund. Drops after this date require instructor's written consent. **SEPTEMBER 9, TUESDAY:** Beginning this date a student who wishes to drop a course must first receive written consent of the instructor.

**OCTOBER 3, FRIDAY:** Last day to drop a course or withdraw from the university with a grade of "W" for courses that a student is not passing; after this date a grade of "WF" may be recorded.

**OCTOBER 6, MONDAY:** Beginning this date instructors may drop students with a grade of "WF" for non-attendance. (Your attendance policy <u>must</u> be written on your syllabus in order to drop students for non-attendance.)

**NOVEMBER 3, MONDAY:** Last day to drop a course with consent of instructor.

**NOVEMBER 10, MONDAY:** Beginning this date a student may request a grade of "I", incomplete, a non-punitive grade given only if a student (1) is passing, (2) has justifiable reason why the work cannot be completed on schedule; and (3) arranges with the instructor to complete the work.

**NOVEMBER 21, FRIDAY:** Last day for an instructor to drop a student with a grade of "WF" for non-attendance. Last day to withdraw from the semester.

**NOVEMBER 27, THURSDAY – 30, SUNDAY:** Thanksgiving – University closed.

NOVEMBER 29, SATURDAY – DECEMBER 5, FRIDAY: Pre-final week. Friday, December 5, is Reading Day – no classes DECEMBER 6, SATURDAY – DECEMBER 12, FRIDAY: Final examinations. Terms ends.

**DECEMBER 13, SATURDAY:** Commencement.

**Academic Dishonesty:** Cheating on final exams, on in-class tests, or on quizzes is a serious breach of academic standards and will be punished severely and generally result in a student failing the course. All work done on in-class exams and quizzes must represent only the student's own work, unless otherwise stated in the directions. See <a href="http://facultysuccess.unt.edu/academic-integrity">http://facultysuccess.unt.edu/academic-integrity</a> for details on academic integrity at UNT.

Classroom Etiquette: Appropriate behavior is expected of all students taking this course. Arrive to class promptly and do not leave until the scheduled ending time of the class. If you must arrive late or leave early, please do so as discreetly as possible and take a seat near the door. Turn off all non-medical electronic devices such as pagers, cell phones, laptops, etc. Take off the headphones. Do not read newspaper or work on unrelated assignments during class. I prefer that you not eat during class. You will be asked to leave the classroom if you access an electronic messaging device during class AND it will be counted as an absence.

**Course Requirements:** As a general rule, average college students are expected to spend three (3) hours per week for each one (1) hour of class working on the course to be able to successfully learn the content. If you are an "average" college-level learner, you should spend about nine (9) hours per week if you expect to successfully complete this course. Adjust for more (or less) hours to accommodate your learning level.

**Drop Policy:** If the student is unable to complete this course, it is his/her responsibility to formally withdraw from the course. The student may do so through the Registrar's Office after obtaining the necessary signatures. Consents for withdrawal and all necessary signatures may be obtained in the Math Department Office, GAB 435. The last day to drop a class with an automatic "W" is Monday, Sept 8. The last day to drop a class with "W" or "WF" is Monday, Nov 3. "WF" is averaged into your GPA as an "F." If the student does not properly withdraw from the course but stops attending, s/he will receive a performance grade, usually an F.

**Exams:** Three in-class exams are planned for this semester. Count your points on exams to be sure the totals are correct. Keep a record of all your scores. If you think that your work has been graded incorrectly, ask for a re-grade immediately after receiving the exam back. Your entire exam will then be re-graded, and you may lose points or gain points on any problem, including but not limited to the problem you ask about. Check your written exam grade with the grade posted online to ensure that they are the same. Each exam is 12% of the course. Content and tentative dates are listed on the attached calendar.

The final exam is comprehensive. Note that the final exam is a department exam and your instructor may not see the exam before the exam date.

## **Exam Etiquette:**

- Place all papers, textbook, notes, etc. in a backpack or a book bag and close it securely.
- Turn off all electronic devices (unless medically necessary), this includes cell phones, pagers, etc.
- Handling of ANY such electronic devices during an exam will be construed as cheating (receiving unauthorized aid) and may
  result in a zero for that exam.
- Do not wear HATS or CAPS during exams.
- Do not share any materials during an exam. This includes, but is not limited to pencils, erasers, calculators, etc.
- Only approved calculators during an exam. You may have both a scientific and a graphing calculator. It is your responsibility to know how to work the calculator(s) you bring to a test.
- Have only the exam, pencil, eraser and calculator out during an exam. Work our space is provided on the actual exam and you can get additional paper from the instructor. You will not be permitted to have any of your own scratch paper during an exam.

**Final Exam:** The final exam is on Tuesday, Dec 9, 4:00pm – 6:00pm. The final exam is comprehensive and is 24% of the course grade. Location will be provided as we approach the final exam.

Homework: Most of your homework assignments will be administered through MyMathLab (MML); you may also have occasional "paper" and "in-class" assignments which evaluate as a homework grade. MML is the required online course delivery platform and MML assignments for the entire term are already set; due dates and times are explicitly stated in MML. Due dates are listed in MML and are typically 30 minutes before class starts. You have five (5) attempts per problem-type for each online problem in MML. Using the "Help Me Solve It" feature uses one attempt. Use the attempts carefully so that you can earn a 100% on each assignment. NO LATE HOMEWORK will be accepted for any reason whatsoever. A grade of zero will be assigned to any homework assignment not completed online and submitted by the due date and time. Specifically, due dates will NOT be extended for any reason. NO EXCEPTIONS. If you are prone to circumstances that affect your ability to complete assignments as due, work ahead. Technical difficulty, including loss of internet access, is not an excuse for not completing assigned work.

At the end of the semester (Thursday, November 26 – Friday, Dec 5, 11:59PM) you will have the opportunity to complete three (3) make-up homework assignments. If you do not complete a homework assignment by the due date during the semester or do not perform as well as you would've liked, you will have the opportunity to replace up to four of those grades by successfully completing Make-up homework assignments. The MML homework assignments are worth 18% of the course grade.\*P.4 homework is only available after completion of Challenge quiz. Details given in class.

**Lab:** The lab portion of this course counts for 12% of your grade. Your grade in lab will consist of attendance as well as completion of in class requirements each day. You will be provided with a calendar of what to expect each day in lab.

**Quizzes:** You must complete on-line chapter quizzes by the posted due date and time. You may take the quizzes at home (algorithmically generated) up to five (5) times. At the end of the semester, one (1) low quiz grade will be dropped from the calculation of the quiz grades average. On-line quizzes are 10% of the course grade. Due dates are listed in MML and are typically 30 minutes before class starts.

**Incomplete, the Grade of:** Beginning Monday, November 11, a student that qualifies may request a grade of "I", incomplete. An "I" is a non-punitive grade given only if ALL three of the following criteria are satisfied. They are:

- 1) The student is passing the course;
- 2) The student has a justifiable (and verifiable) reason why the work cannot be completed as scheduled; and
- 3) The student arranges with the instructor to complete the work within one academic year.

**Make-up Exam Policy:** An exam may be taken <u>prior</u> to the scheduled date. I request a week's notice for this accommodation via email. In the event of a schedule conflict with a university function, dental/physician's appointment, wedding, formal, or whatever, the student must take the test early. If a student does not take a scheduled exam, a zero will be recorded for that exam and a notice may be sent through the registrar's office.

There are three in-class exams. If your final exam score is higher than one of your in-class exam scores, then that in-class exam grade will be replaced with final exam grade. If you miss an in-class exam, a zero will be recorded for that exam grade and your final exam score will replace that one zero. If you receive a zero for cheating on an exam, the final exam score will NOT replace that zero.

MATH LAB (GAB 440): Go to Website: www.math.unt.edu/mathlab for information.

**Fall 2014: September 2 – December 5, 2014** 

Monday - Thursday: 7:00 am - 8:00 pm

Friday: 7:00 am – 4:00 pm Saturday: 12:00 pm – 4:00 pm **Closed Sundays and holidays** 

**Progress Reports:** Students needing progress reports completed/signed for athletics, scholarships and/or any other organization must attend office hours to get them completed.

#### Statement regarding use of email and attendance:

- Email may not be used in lieu of attendance. It is primarily for emergencies. YOU MUST ATTEND class to obtain course-related information.
- YOU are responsible for attending the required class meetings as stated in the course schedule guide.

**Student Behavior:** Student behavior that interferes with an instructor's ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Center for Student Rights and Responsibilities to consider whether the student's conduct violated the Code of Student Conduct. The university's expectations for student conduct apply to all instructional forums, including university and electronic classroom, labs, discussion groups, field trips, etc. The Code of Student Conduct can be found at <a href="https://www.unt.edu/csrr">www.unt.edu/csrr</a>

**Student Evaluation of Teaching Effectiveness:** The Student Evaluation of Teaching Effectiveness (SETE) is a requirement for all organized classes at UNT. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. Please be sure to complete this important survey for all of your UNT courses.

**Web Access:** Students must use the MyMathLab website by logging in through Blackboard at <a href="https://learn.unt.edu/">https://learn.unt.edu/</a> Necessary information for using this site will be provided in the first day of class. The handout will be in Blackboard at <a href="https://learn.unt.edu/">https://learn.unt.edu/</a>.

## MyMathLab Homework Tips

- Find a relatively quiet, distraction-free place with internet connection. Commit to NOT surfing the internet while working on math (or any assignment for that matter).
- Use a spiral notebook to work all of your online assignments. Write work just as you would if the assignments were submitted on paper.
- Keep a notebook for online assignments, both homework and quizzes. Write problems just as you would if the homework is submitted
  on paper.
- You are given five attempts per problem-type. Use the attempts carefully so that you can earn 100% for each MSL homework assignment.
- MyMathLab has very useful features, including viewing videos, animations and a feature called the, "Help Me Solve It." When you use the Help Me Solve It feature be sure to write out each of the guided steps and explanations. Be aware that using the "Help Me Solve It" feature uses one of your five attempts.
- Get help from tutors in the UNT Math Tutor Lab (GAB 440) and from the "Help Me Solve It" feature in MML; but continue to rework a similar exercise until you can do the exercises without any assistance. Only then will be ready to do well on an exam on that material.
- Prepare for tests by reviewing notes, writing your personal learning notes, reworking homework problems, and the Study Plan. Study Plan option to help you focus your learning needs. Use it also to augment your learning process.
- Start preparing and reviewing for the final exam the first week of classes. Revisit previous homework assignments, review completed in-class exams.

## **MyMathLab Quiz Instructions**

•	Your first attempt at the quiz will be in lab. You will then have five additional attempts per quiz. No assistance is availa	ble
	in MML during a quiz.	

•	Quizzes are due on	$_{\_\_}$ . $\mathbf{YOU}$ complete $^{\circ}$	he table below.
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Quiz#	Content & Due Date	Quiz#	Content & Due Date

• Write quiz problems as you work them, just as you would if the quiz is submitted on paper.

### **NOTES:**

- 1) You are responsible for meeting all university deadlines, such as: registration, fee payment, drop deadlines, etc. Refer to the printed Schedule of Classes and/or University Catalog for policies and dates.
- 2) This syllabus is subject to change as the instructor deems necessary. Any/all changes will be announced during regular class time. It is the responsibility of the student to attend each scheduled class to be informed of these changes.

	Monday	Wednesday	Friday	
Week 1	8/25/2014	8/27/2014	8/29/2014	
	Intro	P.1 The Real Numbers and Their Properties, P.2 Integer Exponents and Scientific Notation	P.3 Polynomials, P.4 Factoring Polynomials	
Week 2	9/1/2014	9/3/2014	9/5/2014	
MLK		P.6 Rational Exponents and Radicals	1.1 Linear Equations in One Variable	
Week 3	9/8/2014	9/10/2014	9/12/2014	
	1.2 Quadratic Equations	1.3 Complex Numbers: Quadratic Equations with Complex Solutions	1.4 Solving Other Types of Equations	
Week 4	9/15/2014	9/17/2014	9/19/2014	
	1.5 Inequalities	<ol> <li>1.6 Equations and Inequalities Involving Absolute Value</li> </ol>	2.1 The Coordinate Plane	
Week 5	9/22/2014	9/24/2014	9/26/2014	
	Review	Exam 1 (Chap P and 1)	<ul><li>2.2 Graphs of Equations ,</li><li>2.3 Lines</li></ul>	
Week 6	9/29/2014	10/1/2014	10/3/2014	
	2.4 Functions	2.5 Properties of Functions , 2.6 A Library of Functions	2.7 Transformations of Functions	
Week 7	10/6/2014	10/8/2014	10/10/2014	
	2.8 Combining Functions; Composite Functions	2.9 Inverse Functions	3.1 Quadratic Functions	
Week 8	10/13/2014	10/15/2014	10/17/2014	
	3.2 Polynomial Functions	3.3 Dividing Polynomials	3.4 The Real Zeros of a Polynomial Function	
Week 9	10/20/2014	10/22/2014	10/24/2014	
	3.5 The Complex Zeros of a Polynomial Function	<u> </u>	3.6 Rational Functions , 3.7 Variation	
Week 10	10/27/2014	10/29/2014	10/31/2014	
Wook 11	Review 11/3/2014	Exam 2 (Chap 2 and 3)	4.1 Exponential Functions 11/7/2014	
Week 11	4.2 Logarithmic Functions	4.3 Rules of Logarithms	4.4 Exponential and Logarithmic Equations and Inequalities	
Week 12	11/10/2014	11/12/2014	11/14/2014	
	4.5 Logarithmic Scales	5.1 Systems of Linear Equations in Two Variables	5.5 Systems of Inequalities	
Week 13	11/17/2014	11/19/2014	11/21/2014	
	5.2 Systems of Linear Equations in Three Variables	5.3 Partial-Fraction Decomposition , 5.4 Systems of Nonlinear Equations	Review	
Week 14	11/24/2014	11/26/2014	11/28/2014	
	Exam 3 (Chap 4 and 5)	Review	Thanksgiving	
Week 15	12/1/2014	12/3/2014	12/5/2014	
	Review	Review		
Week 16	12/8/2014	12/10/2014	12/12/2014	
	Fina	als Week		

#### Student information sheet Math 1100.300 Fall 2014

Please answer the following questions so that I can get to know you Preferred Name (What you would like for me to call you? What is your nickname)

Legal Name (What should be on my roll? Full, complete, first and last name)

Contact Information (How can I reach you if there is an emergency? E-mail, home phone, cell phone, For the number "zero," use "Q" For the letter "o," use "o.")

Do you own a cell phone with an unlimited texting plan? Yes No (circle one)

Math History (What math classes have you taken in high school or college?)

What is your major?

Are you absolutely certain that this course satisfies your current degree requirements?

Yes No (circle one)

If you are considering a major change, will this course meet the requirements of the new major?

Yes No (circle one)

What is your career goal?

What would you most like to learn in this course?

What else would you like for me to know about you? Do you have an interesting hobby or story about yourself to tell?

My schedule for working on this class will be (put an X in the boxes you will be working on this class). Be sure to fill in the times this class meets and at least 3 additional hours when you are not otherwise busy:

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
6 AM							
7 AM							
8 AM							
9 AM							
10 AM							
11 AM							
12 PM							
1 PM							
2 PM							
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