

TEXTBOOK: College Algebra, 3rd Edition by Beecher, Penna, Bittinger

CALCULATORS: TI-82, TI-83, TI-84, TI-84Plus, TI-85, or TI-86 calculator is required. Instructors will use a TI-83.

PREREQUISITES: Two years high school algebra or Math 100A or equivalent. Your most recent grade in the prerequisite must be C, P or better. If you had this prerequisite in high school or some place other than UN-L, UN-O, or UN-K, then you must also have a qualifying score on the UN-L Math Placement Exam dated after October 2008. The Department of Mathematics will drop all students who do not satisfy this policy (see the Math Placement policy in the Mathematics section of the Schedule of Classes.)

TAKING THE MPE VIA COMPUTER: A picture ID will be required and calculators are allowed at the exam. Students who need to take the math placement exam may do so through our new computerized setup. NOTE: The student must already have been admitted to UNL and entered into the course registration computer database (SIS+) to be able to take the online version of the Math Placement Exam. Please review all policies via <http://www.math.unl.edu/pi/studentResources/mathPlacementExam>.

NEED HELP? The Mathematics Resource Center in Avery Hall 13B offers free tutorial assistance.
Hours are: 12:30—8:30 p.m. Monday—Thursday; 12:30—2:30 p.m. on Friday; and
1:00—5:00P on Sunday

Course Goals:

With the completion of this course the student should:

1. Recognize the importance of functions in real life applications
2. Be able to utilize functions represented graphically, analytically, and numerically.
3. Identify basic functions (polynomial, rational, exponential, logarithmic) and determine the effect of transformations on these functions.
4. Communicate mathematics more effectively.
5. Enhance existing algebra skills.

WEEK	TOPICS	EXERCISES Completed Through Math XL
Aug 24	1. R1—Real Number System R2—Integer Exponents & Order of Oper.	Pg 7: 13, 15, 19, 23, 27, 75 Pg 14: 5, 13, 21, 25, 29, 31, 35, 37, 43, 47
	2. R3—Addn/Subt/Mult. Of Polynomials	Pg 20: 3, 5, 9, 11, 13, 19, 21, 27, 29, 31, 37, 39, 41
	3. R4—Factoring	Pg 29: 3, 7, 9, 15, 29, 31, 35, 41, 49, 51, 59, 61, 77, 81, 85, 91, 93, 107, 109
Aug 31	4. R5—Rational Expressions	Pg 36: 3, 5, 9, 11, 13, 15, 17, 19, 21, 23, 25, 35, 37, 39, 41, 43, 55, 57
	5. R5—Rational Expressions	Pg 36: 17, 19, 21, 23, 25, 35, 37, 39, 41, 43, 45, 47
	6. R6—Radicals & Rational Exponents	Pg 45: 7, 13, 19, 29, 43, 47, 49, 53, 55, 89, 91, 107, 109
Friday, September 4, 2009: The last day to drop Math 101 Without Receiving a "W"		
Sept 7	LABOR DAY HOLIDAY	NO CLASS
	7. R7—Basics of Equation Solving	Pg 50: 11, 13, 21, 23, 25, 29, 31, 33, 35, 37, 45, 47, 53
	8. Section 1.1—Intro to Graphing	Pg 70: 9, 35, 41, 49, 51, 55, 57, 61, 71, 73, 75, 77, 81
Sept 14	9. Section 1.2—Functions and Graphs	Pg 84: 5, 17, 19, 21, 27, 31, 47, 49, 51, 59, 61, 63, 69, 71
	10. Section 1.3—Linear Functions & Slope	Pg 99: 3, 9, 11, 15, 23, 29, 33, 37, 39, 45, 49, 57
	11. Section 1.4—Equations of Lines & Modeling	Pg 115: 5, 7, 31, 33, 45, 47, 51, 55, 57, 59, 65, 67
Sept 21	12. Review HOOR EXAM 1	
	13. Section 1.5—More on Functions	Pg 127: 3, 5, 15, 19, 21, 23, 31, 71, 73
	14. Section 1.5—Piecewise Functions	Pg 127: 35, 37, 39, 41, 43, 45, 47, 59, 61
Sept 28	15. Section 1.6—The Algebra of Functions	Pg 143: 17, 19, 21, 31, 49, 51, 61, 63, 73, 77, 83, 87, 91
	16. Section 1.7—Symmetry	Pg 163: 5, 7, 11, 13, 17, 21, 25, 27, 31, 35, 39, 45
	17. Section 1.7—Transformations	Pg 163: 53, 55, 63, 67, 81, 83, 85, 87, 89, 97, 99, 103
Oct 5	18. Section 2.1—Linear Equations & Models	Pg 188: 17, 19, 21, 31, 37, 41, 43, 45, 87, 89, 95, 101
	19. Section 2.2—Complex Numbers	Pg 198: 7, 9, 25, 33, 39, 45, 51, 57, 63, 67, 75, 77, 79
	20. Section 2.3—Quadratic Eqns & Models	Pg 213: 7, 11, 15, 17, 19, 27, 29, 31, 35, 45, 55, 59, 67, 69

Oct 12	21. Review HOURLY EXAM 2	
	22. Section 2.3—Modeling w/Quadratic Eqtns	Pg 213: 77, 81, 83, 97, 99, 103
	23. Section 2.4—Analyzing Graphs/Quadratics	Pg 226: 11, 15, 19, 23, 27, 29, 31, 37, 41, 43, 45, 49
Friday, October 16, 2009: The last day to change to/from Pass/No Pass		
Oct 19	FALL BREAK—NO CLASS	
	24. Section 2.5—More Equation Solving	Pg 236: 5, 7, 9, 11, 13, 19, 41, 43, 51, 53, 55, 61
	25. Section 2.5—More Equation Solving	Pg 236: 75, 77, 81, 83, 89, 93, 97, 99, 105, 107
Oct 26	26. Section 2.6—Solving Linear Inequalities	Pg 244: 3, 7, 9, 17, 19, 21, 23, 37, 43, 45, 47, 51, 59
	27. Section 3.1—Polynomial Functns & Models Section 3.2—Graphing Polynomial Funct.	Pg 265: 9, 11, 17, 23, 27, 31, 33, 37, 39, 41, 51 Pg 279: 3, 5, 37, 39
	28. Section 3.3—Polynomial Division	Pg 287: 11, 13, 17, 19, 23, 25, 31, 35, 41, 43
Nov 2	29. Section 3.4—Theorems about Zeros of Polynomials	Pg 298: 1, 3, 9, 13, 15, 21, 25, 31, 33, 39, 43, 47
	30. Section 3.5—Rational Functions	Pg 316: 3, 9, 11, 13, 29, 33, 37, 45, 47, 49, 57, 67
	31. Section 3.5—Rational Functions	Pg 316: 15, 17, 19, 69, 71, 73, 75
Nov 9	32. Review HOURLY EXAM 3	
	33. Section 3.6—Polynomial Inequalities	Pg 326: 7, 9, 11, 17, 19, 21, 25, 27, 29, 31, 33
	34. Section 3.6—Rational Inequalities	Pg 326: 41, 43, 49
Friday, November 13, 2009: The last day to withdraw from Math 101 and receive a “W” on your transcript.		
Nov 16	35. Section 4.1—Inverse Functions	Pg 356: 29, 37, 39, 41, 43, 47, 49, 51, 53, 57, 59, 75, 77, 85
	36. Section 4.2—Exponential Functions	Pg 370: 17, 21, 27, 35, 37, 39, 43, 45, 51, 61, 65
	37. Section 4.3—Logarithmic Functions	Pg 387: 15, 23, 27, 29, 31, 33, 39, 45, 47, 49, 51, 69, 75, 83, 85, 89
Nov 23	38. Section 4.4—Properties of Log Functions	Pg 396: 7, 15, 21, 23, 25, 29, 31, 35, 39, 41, 47, 69, 73, 75
	THANKSGIVING BREAK—NO CLASS THANKSGIVING BREAK—NO CLASS	
Nov 30	39. Review HOURLY EXAM 4	
	40. Section 4.5—Solving Expon. & Log Eqns	Pg 408: 3, 7, 9, 15, 19, 27, 29, 35, 37, 39, 41, 43, 45, 47, 49, 51
	41. Section 4.6—Growth and Decay	Pg 419: 1, 3, 7, 11, 15
Dec 7	42. Section 5.1—Systems of Equations	Pg 446: 19, 21, 27, 29, 31, 33, 39, 43, 47, 49, 53, 59, 61
	43. Review	
	44. Review	DEAD WEEK

**FINAL EXAM: Wednesday, December 16, 2009
6:00—8:00 p.m.
(ROOM TO BE ANNOUNCED)**

You are expected to arrange your personal and work schedule to allow you to take the exam at the scheduled time. Students with conflicting exam schedules may be allowed to take an alternate final, which is always given after the regularly scheduled final. No student will be allowed to take the final exam early. A picture ID (drivers license or student ID) is required to take the final exam.

Department Grading Policy: Students who believe their academic evaluation has been prejudiced or capricious have recourse for appeals in order, to: their instructor; the Chair of the Mathematics Department; the Mathematics Department grading appeals committee; and lastly, the College grading appeals committee.