MTH 1280 (4 semester hours)
COLLEGE ALGEBRA
DEPARTMENTAL SYLLABUS

Revised 1/23

COORDINATOR: Karen Brackenridge (karen.brackenridge@wright.edu)
TEXT: Algebra and Trigonometry, Fourth Edition by Stewart, Redlin, & Watson (ebook through WebAssign)
ONLINE HOMEWORK REQUIRED: WebAssign (course i.d. and website will be given on course information sheet, all students have "Inclusive Access" to all materials on first day)
CALCULATOR: TI 81-86 or equivalent calculator required, calculators with symbolic manipulation like TI 89 not permitted, rentals available with refundable deposit through Math Learning Center, 122 SSC

Chapters/Sections		(Instructor may add or delete) Problem List *÷3* means every 3rd prob.*	Comments	Allotted # 55 min. class meetings
P/1-8 Prerequisites	P1-P2-intro P3-int. exp. P4-rat. exp. P5-alg. exp. P6-factoring P7-rational P8-eq.	No assigned problems 12-33 ÷3* (so 12,15,18,etc.) 59-85 odd,94 15-75 every 6th (so 15,21,etc.), 78,90 12-54 ÷3*,63-99 ÷3*,117 15,19,27,33,39,43,55,59,65,98 12-63 ÷3*,93,96,102,106	Mention use of a model in P1 and set notation & scientific notation on calculator (use of E) in P2, focus on special formulas in P5	1 each section except 2 days for P7 8 days total
1/1-4,6-8 Equations and Graphs	1.1-plane 1.2-circle 1.3-lines 1.4-quad. 1.6-other eq. 1.8-abs. val. 1.7-ineq.	21-31odd,35,37,41 10,27,48,59,67-85odd 12-33 ÷3*,39,42,55-57,62-63 9-51 ÷3*,87,90, systems handout 6-60 ÷3*,67,70,74,85,91 6-57 ÷3*,80 10,12,27-37odd,57 15-63 every 6th,79,82	Do geometry appl. & work but no drt in 1.4, also discuss *i* for negative discriminant & definition, do 1.8 before 1.7 & review set notation	1 each except 2 days ea. for 1.2 & 1.7 and 3 days for 1.4 11 days total
2/1-8 Functions	2.1-func. 2.2-graphs 2.3-info 2.4-ave. rate 2.5-linear 2.6-trans. 2.7-comb. 2.8-1 to 1	17-25odd,31-43odd,44,51-65odd, 83,86 4,6-24 ÷3*,33-41odd,51-59odd,81 7,9,11,15,31,43,45,55,59 7-25odd,30,37-38 9-33 ÷3*,43,47,50 9-69 ÷3* 9-57 ÷3*,63-64,76,80 7-17,25-26,29,37,39,49,51,71,97	Discuss 4 ways p.190, focus on slope as rate of change in 2.4-2.5	1 each except 2 days for 2.1 9 days total
3/1-3,5-6 Polynomial and Rational Functions & Modeling	3.1-quad. p.273-model 3.2-poly. 3.3,3.5 3.6-rat.	6-54 ÷3* 1-11odd,19,21,23,24,26,29 9-42 ÷3*,45,51-54 Handout Div. Poly. & Fund. Thm. 15-42 ÷3*,43,45,49,51,57,89	Skip drt on p.273, no book hmwk. from 3.3 & 3.5, skip slant in 3.6	2 each except 3 days for p.273 11 days total
4/1-5 Exponential and Log Functions	4.1-exp. 4.2-e 4.3-logs 4.4-laws 4.5-eq.	9-39 ÷3*,53,57,59,61-62 7-15odd,23,27,33,36-37 9-66 ÷3*,96-97,99 9-45 ÷3*,49-55odd,59-60,73 12-36 ÷3*,51-66 ÷3*,89,91,95,99		1 each except 2 days ea. for 4.3, 4.4, & 4.5 8 days total

47 days total, leeway is 7-8 days for tests, review, more time on individual sections, etc.

COMPONENTS FOR GRADE

Test #1	13%	Recommended covering P3-1.6	(11 sections)
Test #2	13%	Recommended covering 1.7-2.8	(10 sections)
Test #3	13%	Recommended covering 3.1-4.5 (all tests made by instructor)	(11 sections, minimal from 3.3,3.5)

Note: The instructor may choose to give four tests instead of three, but they must all be equal in weight and collectively add to 39% of the course grade (i.e. each one would be worth 9.75%).

Common final	25%	Made and graded by all instructors of MTH 1280
WebAssign	21%	Online homework set up by course coordinator
Instructor quizzes, assignments, etc.	15%	Made by instructor

WEBASSIGN INFORMATION (ONLINE HOMEWORK COMPONENT)

The course coordinator will provide pre-made WebAssign assignments for use throughout the course. The instructors need to set their own due dates for these assignments, and they have the option to delete or add problems to the assignments. Instructors may also add additional assignments as needed.

ODS 180 University Hall, (937) 775-5680

LEARNING OUTCOMES (an expanded list can be found on Curriculog)

Students in MTH 1280 can

1) Plot points in the coordinate plane and find and interpret distance and midpoint
2) Find and use standard form of a circle
3) Solve absolute value and power equations and solve absolute value inequalities
4) Identify, represent, develop, use, and analyze linear, quadratic, polynomial, rational, exponential, and logarithmic functions, including for real-world modeling
5) Use technology to assist with graphing of functions and describe properties of graphs such as end behavior, zeros, increase/decrease, and maximum/minimum
6) Solve linear, quadratic, polynomial, and rational equations and inequalities, solve exponential and logarithmic equations, and use correct notation throughout a coherent solution process
7) Solve linear systems of equations and interpret graphically