Mrs. Bandy	Precalculus Syllabus 2024-25 (subject to small changes) Wednesdays @ Metro, Thursdays @ Eastside		total:
Weds:	* Lessons in italics should be completed at home BEFORE class		
14-Aug week 1	☐ 1.1: Sets, real numbers, inequalities, abs. values	15	
14-Aug Week 1 1A	☐ 1.2: Exponents and radicals	19	
IA	☐ 1.3: Polynomials, Pythagoras, geometry, calculators	10	
	☐ 1.4:Equations, quadratic equations	15	
	☐ 1.5: Mathematical modeling	17	61 min
21-Aug week 2	☐ 1.6: More mathematical modeling	21	01 111111
1B	☐ 1.7: Inequalities, combined inequalities, quad. Ineq.	25+18	
1C	☐ 1.8: Polynomial, rational, absolute value inequalities	25+49	50+ min
28-Aug week 3	☐ 1.9: Complex numbers, complex conjugates	30	
1D	$\square$ 1.10: <i>i</i> and powers of <i>i</i> , negative discriminants	14	
	☐ 1.11: rectangular coordinates, dist & midpt formula	11	
	☐ 1.12: graphing equations, using intercepts & symmetry	19	
	□ 1.13: circles	12	56 min
4-Sep week 4	$\Box$ 1.14: slope of a line, linear equation forms	29	
1E	☐ 1.15: parallel and perpendicular lines	12	
(1F)	☐ 2.1: definition of a function	15	
(1G)	☐ 2.2: graph of a function	22	
	☐ 2.3: function notation, difference quotients	25	74 min
11-Sep week 5	☐ 2.4: important functions	20	
T1	☐ 2.5: piecewise functions	10	
2A	☐ 2.6: graphing functions	7	
2B	☐ 2.7: scaling a graph vertically	8	
	☐ 2.8: combining graphing procedures	12	
	☐ 2.9: operations on functions	10	47 min
18-Sep week 6	$\square$ 2.10: composite functions - begin at home through 2.10e	9	
	☐ 2.10: composite functions - finish in class, f - i	27	
2C	☐ 2.11: one-to-one functions	12	
2D	☐ 2.12: inverse functions	12	
2E	☐ 2.13: mathematical models	9	
(2F)	☐ 2.14: more mathematical models	10	70 min
25-Sep week 7	$\square$ 3.1: quadratic functions	21	
T2	☐ 3.2: graphing quadratics	11	
3A	3.3: applications	18	29
2-Oct week 8	☐ 3.4: polynomial functions	18	
3B	☐ 3.5: graphing polynomial functions	23	
	☐ 3.6: analyzing graphs of polynomials	23	46 min
9-Oct week 9	☐ 3.7: rational functions	15	
3C	☐ 3.8: asymptotes	25	
	☐ 3.9: graphing rational functions	19	
46.0 : "	3.10: graphing more rational functions	21	80 min
16-Oct off	Fall Break!		

23-Oct week 10	$\square$ 3.13: zeros of a polynomial	19	
3D	☐ 3.11: division of polynomials	23	
	☐ 3.12: synthetic division	16	
	☐ 3:14: finding real zeros	41	80 min
30-Oct week 11	☐ 3:15: approximating real zeros videos 3.15a - e only	11	
3E	oxdot 3:16: fundamental theorem of algebra	8	
(3F) (3G)	☐ 3:15: approximating real zeros - Intermediate Value Thm	7	
	☐ 3:17: complex polynomials	17	
	☐ 4.1: exponential and logarithmic functions	39	
	☐ 4.2: the base e	16	79 min
6-Nov week 12	$\square$ 4.3: logarithmic functions	12	
Т3	☐ 4.4: graphs of logarithmic functions	12	
4A	☐ 4.5: properties of logarithms	25	
4B	☐ 4.6: logarithms on a calculator	13	50 mn
13-Nov week 13	$\square$ 4.7: logarithmic equations	13	
4C	☐ 4.8: exponential equations	30	
	☐ 4.9: compound interest	17	
	☐ 4.10 more compound interest	13	60 min
20-Nov week 14	$\square$ 4.13: logarithmic scales	18	
4D	☐ 4.11: growth and decay	17	
(4E)	☐ 4.12: radioactive decay	26	43 min
27-Nov	THANKSGIVING BREAK		
4-Dec week 15	REVIEW DAY in class		
T4	**exam review packet!**		61 min
11-Dec week 16	$\square$ 5.1: angles and degrees	32	
5A	☐ 5.2: circular motion	31	
	☐ 5.3: the unit circle	20	
_	☐ 5.4: trig functions of common angles	35	86 min
	midterm exam due by 12/16/2022		
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8-Jan week 17	Precalculus Spring Semester  ☐ 5.5: domain and range of trig functions	27	
5B	In Class: quick review of the unit circle	12	
5C	5.6: fundamental identities	25	
5D	☐ 5.7: right triangle trigonometry	13	
30	☐ 5.8: reference angles	14	
	☐ 5.9: solving right triangles	8	
	☐ 5.10: applications	15	87 min
15-Jan week 18	☐ 6.1: graphs of the sine function	38	67 IIIII
T5	☐ 6.2: graphs of the cosine function - practice some in class	18	
6A	☐ 6.3: sinusoidal graphs	22	
6B	☐ 6.4: phase shifts	22 17	57 min
22-Jan week 19	☐ 6.6: simple harmonic motion	14	37 111111
6C	☐ 6.5: combining waves	23	
	☐ 6.7: graphs of the tangent function	10	
	6.8: graphs of cosecant, secant, cotangent	16	
	☐ 6.9: inverse sine	10	59 min
	□ 0.3. IIIVEI3E 3IIIE	10	JJ 111111

29-Jan week 20	☐ 6.10: inverse cosine	4	
6D	$\square$ 6.11: inverse tangent	4	
7A	☐ 6.12: expressions involving trig functions	10	
	☐ 7.1: trigonometric identities	27	
	☐ 7.2: sum and difference formulas	33	70 min
5-Feb week 21	$\square$ 7.3: more sum and difference formulas	12	
Т6	$\square$ 7.4: double angle formulas	14	
7B	☐ 7.5: half angle formulas	7	
7C	☐ 7.6: sum to product and product to sum formulas	3	
7D	☐ 7.7: trigonometric equations	15	
	☐ 7.8: more trigonometric equations	31	56 min
12-Feb week 22	$\square$ 8.1: law of sines	12	
T7	☐ 8.2: the ambiguous case	27	
8A	☐ 8.3: applications	11	
8B	☐ 8.4: law of cosines	14	
8C	☐ 8.5: area of a triangle	7	59 min
19-Feb off!	Winter break - catch up week!!		
26-Feb week 23	$\square$ 8.6: polar coordinates	13	
8D E	☐ 8.7: polar and rectangular conversion	27	
8F	☐ 8.8: polar equations graph	12	
	☐ 8.9: more polar equations and graphs	21	
	☐ 8.10: even more polar equations and graphs	5	65 min
5-Mar week 24	☐ 8.11: complex numbers	41	
8G H	Practice 8.11 and anything else in class		
<u>8</u> 1	☐ 8.12: DeMoivre's theorem	9	
12-Mar week 25	$\square$ 9.1: Conic Sections	5	
Т8	☐ 9.2: Parabolas	26	
9A	☐ 9.3: translation of parabolas	20	
	☐ 9.4: Ellipses	23	69 min
19-Mar week 26	$\square$ 9.5: translation of ellipses	32	
9B	$\square$ 9.8: general form of a conic	8	
9C	☐ 9.6: Hyperbolas	15	
	☐ 9.7: translation of hyperbolas	16	
	☐ 9.9: parametric equations	23	
	9.10: parametric equations on a calculator	15	77 min
26-Mar week 27	$\square$ 10.1: solving systems	15	
Т9	Practice with ch 9, esp. parametric equations	20	
10A	☐ 10.2: more solving systems	11	
	☐ 10.3: even more solving systems	22	53 min
2-Apr week 28	$\Box$ 10.4: matrix notation just videos a & b	7	
10B	☐ 10.4: matrix notation finish in class	13	
10C	☐ 10.5: echelon form	15	
	☐ 10.6: determinants	28	56 min
9-Apr	SPRING BREAK!!		

16-Apr week 29	☐ 10.7: nonlinear systems	17	
10 E F	☐ 10.8: systems of inequalities	29	
	☐ 11.1: sequences, etc. Begin in class	30	59 min
23-Apr week 30	$\square$ 11.1: sequences, etc. finish at home	10	
T10	☐ 11.2: factorials, redursion, summation notation	42	
11A	☐ 11.3: arithmetic sequences and series	19	
11B	☐ 11.4: geometric sequences and series	18	79 min
30-Apr week 31	☐ 11.5: mathematical induction	44	
11C	☐ 11.6: the binomial theorem	32	76 min
7-May week 32	No chapter 11 test!! - but it will appear on the final exam!		
	EXAM REVIEW - in class		

final exam due by 5/23/2025

<sup>\*</sup>work submitted by 5/20 will be eligible for corrections