

Bandy, N

**Precalculus Syllabus 2023-2024** (subject to small changes)

Wednesdays @ Metro, Thursdays @ Eastside

total:

Weds:

*\* Lessons in italics should be completed at home BEFORE class*

16-Aug <b>week 1</b>	<input type="checkbox"/> 1.1: <i>Sets, real numbers, inequalities, abs. values</i>	15	
1A	<input type="checkbox"/> 1.2: Exponents and radicals	19	
	<input type="checkbox"/> 1.3: Polynomials, Pythagoras, geometry, calculators	10	
	<input type="checkbox"/> 1.4: Equations, quadratic equations	15	
	<input type="checkbox"/> 1.5: Mathematical modeling	17	61 min
23-Aug <b>week 2</b>	<input type="checkbox"/> 1.6: <i>More mathematical modeling</i>	21	
1B	<input type="checkbox"/> 1.7: Inequalities, combined inequalities, quad. Ineq.	25+18	
1C	<input type="checkbox"/> 1.8: Polynomial, rational, absolute value inequalities	25+49	50+ min
30-Aug <b>week 3</b>	<input type="checkbox"/> 1.9: <i>Complex numbers, complex conjugates</i>	30	
1D	<input type="checkbox"/> 1.10: <i>i</i> and powers of <i>i</i> , negative discriminants	14	
	<input type="checkbox"/> 1.11: rectangular coordinates, dist & midpt formula	11	
	<input type="checkbox"/> 1.12: graphing equations, using intercepts & symmetry	19	
	<input type="checkbox"/> 1.13: circles	12	56 min
6-Sep <b>week 4</b>	<input type="checkbox"/> 1.14: <i>slope of a line, linear equation forms</i>	29	
1E	<input type="checkbox"/> 1.15: parallel and perpendicular lines	12	
(1F)	<input type="checkbox"/> 2.1: definition of a function	15	
(1G)	<input type="checkbox"/> 2.2: graph of a function	22	
	<input type="checkbox"/> 2.3: function notation, difference quotients	25	74 min
13-Sep <b>week 5</b>	<input type="checkbox"/> 2.4: <i>important functions</i>	20	
T1	<input type="checkbox"/> 2.5: piecewise functions	10	
2A	<input type="checkbox"/> 2.6: graphing functions	7	
2B	<input type="checkbox"/> 2.7: scaling a graph vertically	8	
	<input type="checkbox"/> 2.8: combining graphing procedures	12	
	<input type="checkbox"/> 2.9: operations on functions	10	47 min
20-Sep <b>week 6</b>	<input type="checkbox"/> 2.10: <i>composite functions - begin at home through 2.10e</i>	9	
	<input type="checkbox"/> 2.10: composite functions - finish in class, f - i	27	
2C	<input type="checkbox"/> 2.11: one-to-one functions	12	
2D	<input type="checkbox"/> 2.12: inverse functions	12	
2E	<input type="checkbox"/> 2.13: mathematical models	9	
(2F)	<input type="checkbox"/> 2.14: more mathematical models	10	70 min
27-Sep <b>week 7</b>	<input type="checkbox"/> 3.1: <i>quadratic functions</i>	21	
T2	<input type="checkbox"/> 3.2: graphing quadratics	11	
3A	<input type="checkbox"/> 3.3: applications	18	
	<input type="checkbox"/> 3.4: polynomial functions	18	
	<input type="checkbox"/> 3.5: graphing polynomial functions	23	70 min
4-Oct <b>week 8</b>	<input type="checkbox"/> 3.6: <i>analyzing graphs of polynomials</i>	23	
3B	<input type="checkbox"/> 3.7: rational functions	15	
3C	<input type="checkbox"/> 3.8: asymptotes	25	
	<input type="checkbox"/> 3.9: graphing rational functions	19	
	<input type="checkbox"/> 3.10: graphing more rational functions	21	80 min
11-Oct <b>off</b>	Fall Break!		
18-Oct <b>week 9</b>	<input type="checkbox"/> 3.13: <i>zeros of a polynomial</i>	19	

3D	<input type="checkbox"/> 3.11: division of polynomials	23	79 min
	<input type="checkbox"/> 3.12: synthetic division	16	
	<input type="checkbox"/> 3.14: finding real zeros	41	
25-Oct <b>week 10</b>	<input checked="" type="checkbox"/> 3.15: approximating real zeros videos 3.15a - e only	11	79 min
3E	<input checked="" type="checkbox"/> 3.16: fundamental theorem of algebra	8	
(3F) (3G)	<input type="checkbox"/> 3.15: approximating real zeros - Intermediate Value Thm	7	
	<input type="checkbox"/> 3.17: complex polynomials	17	
	<input type="checkbox"/> 4.1: exponential and logarithmic functions	39	
	<input type="checkbox"/> 4.2: the base e	16	
1-Nov <b>week 11</b>	<input checked="" type="checkbox"/> 4.3: logarithmic functions	12	72 min
T3	<input type="checkbox"/> 4.4: graphs of logarithmic functions	12	
4A	<input type="checkbox"/> 4.5: properties of logarithms	25	
4B	<input type="checkbox"/> 4.6: logarithms on a calculator	13	
8-Nov <b>week 12</b>	<input checked="" type="checkbox"/> 4.7: logarithmic equations	13	62 min
4C	<input type="checkbox"/> 4.8: exponential equations	30	
	<input type="checkbox"/> 4.9: compound interest	17	
	<input type="checkbox"/> 4.10 more compound interest	13	
15-Nov <b>week 13</b>	<input checked="" type="checkbox"/> 4.11: growth and decay	17	73 min
4D	<input type="checkbox"/> 4.12: radioactive decay	26	
(4E)	<input type="checkbox"/> 4.13: logarithmic scales	18	
22-Nov	<b>THANKSGIVING BREAK</b>		
29-Nov <b>week 14</b>	REVIEW DAY in class		61 min
	Chapter 4 test optional but recommended. Due by 11/30		
6-Dec <b>week 15</b>	<input checked="" type="checkbox"/> 5.1: angles and degrees	32	86 min
5A	<input type="checkbox"/> 5.2: circular motion	31	
<b>5B</b>	<input type="checkbox"/> 5.3: the unit circle	20	
	<input type="checkbox"/> 5.4: trig functions of common angles	35	
<b>midterm exam due by 12/16/2022</b>			

## Precalculus Spring Semester

3-Jan	Metro and Eastside begin, but no math this week! See you after Epiphany.		
10-Jan	<b>week 16</b>	<input type="checkbox"/> 5.5: domain and range of trig functions	27
5C		In Class: quick review of the unit circle	12
5D		<input type="checkbox"/> 5.6: fundamental identities	25
		<input type="checkbox"/> 5.7: right triangle trigonometry	13
		<input type="checkbox"/> 5.8: reference angles	14
		<input type="checkbox"/> 5.9: solving right triangles	8
		<input type="checkbox"/> 5.10: applications	15
			87 min
17-Jan	<b>week 17</b>	<input type="checkbox"/> 6.1: graphs of the sine function	38
T5		<input type="checkbox"/> 6.2: graphs of the cosine function - practice some in class	18
6A		<input type="checkbox"/> 6.3: sinusoidal graphs	22
6B		<input type="checkbox"/> 6.4: phase shifts	17
			57 min
24-Jan	<b>week 18</b>	<input type="checkbox"/> 6.6: simple harmonic motion	14
6C		<input type="checkbox"/> 6.5: combining waves	23
		<input type="checkbox"/> 6.7: graphs of the tangent function	10
		<input type="checkbox"/> 6.8: graphs of cosecant, secant, cotangent	16
		<input type="checkbox"/> 6.9: inverse sine	10
			59 min
31-Jan	<b>week 19</b>	<input type="checkbox"/> 6.10: inverse cosine	4
6D		<input type="checkbox"/> 6.11: inverse tangent	4
7A		<input type="checkbox"/> 6.12: expressions involving trig functions	10
		<input type="checkbox"/> 7.1: trigonometric identities	27
		<input type="checkbox"/> 7.2: sum and difference formulas	33
			70 min
7-Feb	<b>week 20</b>	<input type="checkbox"/> 7.3: more sum and difference formulas	12
T6		<input type="checkbox"/> 7.4: double angle formulas	14
7B		<input type="checkbox"/> 7.5: half angle formulas	7
7C		<input type="checkbox"/> 7.6: sum to product and product to sum formulas	3
7D		<input type="checkbox"/> 7.7: trigonometric equations	15
		<input type="checkbox"/> 7.8: more trigonometric equations	31
			56 min
14-Feb	off!	Winter break - catch up week!!	
21-Feb	<b>week 21</b>	<input type="checkbox"/> 8.1: law of sines	12
T7		<input type="checkbox"/> 8.2: the ambiguous case	27
8A		<input type="checkbox"/> 8.3: applications	11
8B		<input type="checkbox"/> 8.4: law of cosines	14
8C		<input type="checkbox"/> 8.5: area of a triangle	7
			59 min
28-Feb	<b>week 22</b>	<input type="checkbox"/> 8.6: polar coordinates	13
8D E		<input type="checkbox"/> 8.7: polar and rectangular conversion	27
8F		<input type="checkbox"/> 8.8: polar equations graph	12
8G H		<input type="checkbox"/> 8.9: more polar equations and graphs	21
		<input type="checkbox"/> 8.10: even more polar equations and graphs	5
			65 min
6-Mar	<b>week 23</b>	<input type="checkbox"/> 8.11: complex numbers	41
8H		Practice 8.11 and anything else in class	
8I		<input type="checkbox"/> 8.12: DeMoivre's theorem	9
			?
13-Mar	<b>week 24</b>	<input type="checkbox"/> 9.1: Conic Sections	5
T8		<input type="checkbox"/> 9.2: Parabolas	26
9A		<input type="checkbox"/> 9.3: translation of parabolas	20

	<input type="checkbox"/> 9.4: Ellipses	23	69 min
20-Mar <b>week 25</b>	<input type="checkbox"/> 9.5: <i>translation of ellipses</i>	32	
9B	<input type="checkbox"/> 9.6: Hyperbolas	15	
9C	<input type="checkbox"/> 9.7: translation of hyperbolas	16	
	<input type="checkbox"/> 9.8: general form of a conic	8	
	<input type="checkbox"/> 9.9: parametric equations	23	
	<input type="checkbox"/> 9.10: parametric equations on a calculator	15	77 min
27-Mar <b>week 26</b>	<input type="checkbox"/> 10.1: <i>solving systems</i>	15	
T9	Practice with ch 9, esp. parametric equations	20	
10A	<input type="checkbox"/> 10.2: more solving systems	11	
	<input type="checkbox"/> 10.3: even more solving systems	22	53 min
3-Apr	<b>SPRING BREAK!!</b>		
10-Apr <b>week 27</b>	<input type="checkbox"/> 10.4: <i>matrix notation just videos a &amp; b</i>	7	
10B	<input type="checkbox"/> 10.4: matrix notation finish in class	13	
10C	<input type="checkbox"/> 10.5: echelon form	15	
	<input type="checkbox"/> 10.6: determinants	28	56 min
17-Apr <b>week 28</b>	<input type="checkbox"/> 10.7: <i>nonlinear systems</i>	17	
10D	<input type="checkbox"/> 10.8: systems of inequalities	29	
10E F	<input type="checkbox"/> 11.1: sequences, etc. Begin in class	30	59 min
24-Apr <b>week 29</b>	<input type="checkbox"/> 11.1: <i>sequences, etc. finish at home</i>	10	
T10	<input type="checkbox"/> 11.2: factorials, redursion, summation notation	42	
11A	<input type="checkbox"/> 11.3: arithmetic sequences and series	19	
11B	<input type="checkbox"/> 11.4: geometric sequences and series	18	79 min
1-May <b>week 30</b>	<input type="checkbox"/> 11.5: mathematical induction	44	
11C	<input type="checkbox"/> 11.6: the binomial theorem	32	76 min
8-May <b>week 31</b>	No chapter 11 test!! - but it will appear on the final exam! EXAM REVIEW - in class <b>final exam due by 5/26/2023</b>		