

Bandy, N**Precalculus Syllabus 2022-2023** (subject to small changes)

Wednesdays, MAS

video minutes

total:

17-Aug	week 1	<input type="checkbox"/> 1.1: Sets, real numbers, inequalities, abs. values	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	59 min
24-Aug	week 2	<input type="checkbox"/> 1.5: Mathematical modeling	17	
1B		<input type="checkbox"/> 1.6: More mathematical modeling	21	
1C		<input type="checkbox"/> 1.7: Inequalities, combined inequalities, quad. Ineq.	25+18	
		<input type="checkbox"/> 1.8: Polynomial, rational, absolute value inequalities	25+49	88 min
31-Aug	week 3	<input type="checkbox"/> 1.9: Complex numbers, complex conjugates	30	
1D		<input type="checkbox"/> 1.10: i and powers of 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	74 min
7-Sep	week 4	<input type="checkbox"/> 1.13: circles	12	
1E		<input type="checkbox"/> 1.14: slope of a line, linear equation forms	29	
(1F)		<input type="checkbox"/> 1.15: parallel and perpendicular lines	12	
(1G)		<input type="checkbox"/> 2.1: definition of a function	15	
		<input type="checkbox"/> 2.2: graph of a function	22	90 min
14-Sep	week 5	<input type="checkbox"/> 2.3: function notation, difference quotients	25	
T1		<input type="checkbox"/> 2.4: important functions	20	
2A		<input type="checkbox"/> 2.5: piecewise functions	10	
2B		<input type="checkbox"/> 2.6: graphing functions	7	
		<input type="checkbox"/> 2.7: scaling a graph vertically	8	
		<input type="checkbox"/> 2.8: combining graphing procedures	12	82 min
21-Sep	week 6	<input type="checkbox"/> 2.9: operations on functions	10	
2C		<input type="checkbox"/> 2.10: composite functions	36	
2D		<input type="checkbox"/> 2.11: one-to-one functions	12	
2E		<input type="checkbox"/> 2.12: inverse functions	12	
(2F)		<input type="checkbox"/> 2.13: mathematical models	9	
		<input type="checkbox"/> 2.14: more mathematical models	10	89 min
28-Sep	week 7	<input type="checkbox"/> 3.1: quadratic functions	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	68 min
5-Oct	week 8	<input type="checkbox"/> 3.5: graphing polynomial functions	23	
3B		<input type="checkbox"/> 3.6: analyzing graphs of polynomials	23	
		<input type="checkbox"/> 3.7: rational functions	15	
		<input type="checkbox"/> 3.8: asymptotes	25	86 min
12-Oct	off	Amnesty week - catch up! No class today		
19-Oct	week 9	<input type="checkbox"/> 3.9: graphing rational functions	19	
3C		<input type="checkbox"/> 3.10: graphing more rational functions	21	
3D		<input type="checkbox"/> 3.11: division of polynomials	23	
		<input type="checkbox"/> 3.12: synthetic division	16	79 min
26-Oct	week 10	<input type="checkbox"/> 3.13: zeros of a polynomial	19	
3B		<input type="checkbox"/> 3.14: finding real zeros	41	

	3C	<input type="checkbox"/>	3:15: approximating real zeros	18	
	3D	<input type="checkbox"/>	3:16: fundamental theorem of algebra	8	79 min
2-Nov	week 11	<input type="checkbox"/>	3:17: complex polynomials	17	
	3E	<input type="checkbox"/>	4.1: exponential and logarithmic functions	39	
	(3F) (3G)	<input type="checkbox"/>	4.2: the base e	16	72 min
9-Nov	week 12	<input type="checkbox"/>	4.3: logarithmic functions	12	
	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	62 min
16-Nov	week 13	<input type="checkbox"/>	4.7: logarithmic equations	13	
	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	73 min
23-Nov	THANKSGIVING BREAK				
30-Nov	week 14	<input type="checkbox"/>	4.11: growth and decay	17	
	4D	<input type="checkbox"/>	4.12: radioactive decay	26	
	(4E)	<input type="checkbox"/>	4.13: logarithmic scales	18	61 min
7-Dec	week 15	REVIEW DAY in class			
	(T4)	midterm exam due by 12/16/2022			

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Precalculus Spring Semester

4-Jan	week 16	<input type="checkbox"/>	5.1: angles and degrees	32	
	5A	<input type="checkbox"/>	5.2: circular motion	31	
	5B	<input type="checkbox"/>	5.3: the unit circle	20	
		<input type="checkbox"/>	5.4: trig functions of common angles	35	118
11-Jan	week 17	<input type="checkbox"/>	5.5: domain and range of trig functions	27	
	5C	<input type="checkbox"/>	5.6: fundamental identities	25	
	5D	<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	102
18-Jan	week 18	<input type="checkbox"/>	6.1: graphs of the sine function	38	
	T5	<input type="checkbox"/>	6.2: graphs of the cosine function	18	
	6A	<input type="checkbox"/>	6.3: sinusoidal graphs	22	
	6B	<input type="checkbox"/>	6.4: phase shifts	17	95
25-Jan	week 19	<input type="checkbox"/>	6.5: combining waves	14	
	6C	<input type="checkbox"/>	6.6: simple harmonic motion	23	
	6D	<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	
		<input type="checkbox"/>	6.10: inverse cosine	4	
		<input type="checkbox"/>	6.11: inverse tangent	4	
		<input type="checkbox"/>	6.12: expressions involving trig functions	10	91
1-Feb	week 20	<input type="checkbox"/>	7.1: trigonometric identities	27	
	T6	<input type="checkbox"/>	7.2: sum and difference formulas	33	
	7A-C	<input type="checkbox"/>	7.3: more sum and difference formulas	12	72

8-Feb	week 21	<input type="checkbox"/> 7.4: double angle formulas	14	
	7D	<input type="checkbox"/> 7.5: half angle formulas	7	
	7E	<input type="checkbox"/> 7.6: sum to product and product to sum formulas	3	
	7F	<input type="checkbox"/> 7.7: trigonometric equations	15	
		<input type="checkbox"/> 7.8: more trigonometric equations	31	70
15-Feb	off	Winter break - catch up week!!		
22-Feb	week 22	<input type="checkbox"/> 8.1: law of sines	12	
	T7	<input type="checkbox"/> 8.2: the ambiguous case	27	
	8A, B	<input type="checkbox"/> 8.3: applications	11	
		<input type="checkbox"/> 8.4: law of cosines	14	
		<input type="checkbox"/> 8.5: area of a triangle	7	71
1-Mar	week 23	<input type="checkbox"/> 8.6: polar coordinates	13	
	8C, D	<input type="checkbox"/> 8.7: polar and rectangular conversion	27	
	8E, F	<input type="checkbox"/> 8.8: polar equations graph	12	52
8-Mar	week 24	<input type="checkbox"/> 8.9: more polar equations and graphs	21	
	8G	<input type="checkbox"/> 8.10: even more polar equations and graphs	5	
	8H	<input type="checkbox"/> 8.11: complex numbers	41	
	8I	<input type="checkbox"/> 8.12: DeMoivre's theorem	9	76
15-Mar	week 25	<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	51
22-Mar	week 26	<input type="checkbox"/> 9.4: Ellipses	23	
	9B	<input type="checkbox"/> 9.5: translation of ellipses	32	
	9C	<input type="checkbox"/> 9.6: Hyperbolas	15	
		<input type="checkbox"/> 9.7: translation of hyperbolas	16	86
29-Mar	week 27	<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	46
5-Apr	SPRING BREAK!!			
12-Apr	week 28	<input type="checkbox"/> 10.1: solving systems	15	
	T9	<input type="checkbox"/> 10.2: more solving systems	11	
	10A	<input type="checkbox"/> 10.3: even more solving systems	22	
	10B	<input type="checkbox"/> 10.4: matrix notation	19	
		<input type="checkbox"/> 10.5: echelon form	15	82
19-Apr	week 29	<input type="checkbox"/> 10.6: determinants	28	
	10C-E	<input type="checkbox"/> 10.7: nonlinear systems	17	
	10F (h)	<input type="checkbox"/> 10.8: systems of inequalities	29	74
26-Apr	week 30	<input type="checkbox"/> 11.1: sequences, etc.	20	
	T10	<input type="checkbox"/> 11.2: recursion	22	
	11A	<input type="checkbox"/> 11.3: arithmetic sequences and series	19	61
3-May	week 31	<input type="checkbox"/> 11.4: geometric sequences and series	18	
	11B	<input type="checkbox"/> 11.5: mathematical induction	44	
	11C	<input type="checkbox"/> 11.6: the binomial theorem	32	94
	no T11!			
10-May	week 32	EXAM REVIEW - in class		
	final exam due by 5/26/2023			