COURSE: Advanced Algebra

SEMESTER: Spring 2016

WEEK	DAY	CONCEPT	OBJECTIVES	INSTRUCTIONAL STRATEGIES	STANDARDS (CCGPS, GPS, AP)
Week 1	Monday, 1/4		FACULTY AND STA	FF PROFESSIONAL LEARNING DAY / STUDENT HOLIDAY	
	Tuesday, 1/5	6-3 &6-5 Review	Assessment	Classwork: Worksheet to review concepts from 6-3 and 6-5 prior to starting 6-4 tomorrow	MCC9-12.A.REI.11 MCC9-12.A.REI.2 MCC9-12.A.CED.3 MCC9-12.A.CED.1 MCC9- 12.A.APR.7+
	Wednesday, 1/6	6-4: Rational	Graph Rational	Warm Up: basic factoring review	MCC9-12.F.BF.3
		Functions	Functions Transform rational	Key Vocabulary: rational function, vertical asymptote, horizontal asymptote, discontinuous function, continuous function	MCC9-12.F.IF.5 MC9-12.F.IF.7d(+)
			functions by changing parameters	 Notes on the parent graph of rational functions and their transformations Homework: pg. 211 #2-7 	
	Thursday, 1/7	6-4: Rational Functions	Graph Rational Functions Transform rational functions by changing parameters	 Warm Up: basic factoring review Key Vocabulary: rational function, vertical asymptote, horizontal asymptote Continue examples on the parent graph of rational functions and their transformations Notes on identifying vertical and horizontal asymptotes, domain, and range of rational functions using their equations & graphs Homework: pg. 211 #17-22 	MCC9-12.F.BF.3 MCC9-12.F.IF.5 MC9-12.F.IF.7d(+)
	Friday, 1/8	6-4: Rational Functions	Graph Rational Functions Transform rational functions by changing parameters	 Warm Up: basic factoring review Key Vocabulary: rational function, vertical asymptote, horizontal asymptote, zeros, slant asymptote Notes on using a calculator to graph rational functions with a polynomial in the numerator Notes on identifying vertical, horizontal, and slant asymptotes, zeroes, domain, and range of rational functions using their equations & graphs Homework: pg. 211 #8-10, 14-16 	MCC9-12.F.BF.3 MCC9-12.F.IF.5 MC9-12.F.IF.7d(+)

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WEEK	DAY	CONCEPT	OBJECTIVES	INSTRUCTIONAL STRATEGIES	STANDARDS (CCGPS, GPS, AP)
Week 2	Monday, 1/11	6-4: Rational Functions	Graph Rational Functions	Classwork: Students will work in groups to review graphing of rational functions and listing their characteristics	MCC9-12.F.BF.3 MCC9-12.F.IF.5
			Transform rational		MC9-12.F.IF.7d(+)
			functions by changing parameters		
	Tuesday, 1/12	6-4: Rational	Assessment	6-4 Quiz (Graphing rational functions without holes)	MCC9-12.F.BF.3
		Functions			MCC9-12.F.IF.5
					MC9-12.F.IF.7d(+)
	Wednesday, 1/13	6-4: Rational	Graph Rational	Warm Up: give a rational function problem to identify its	MCC9-12.F.BF.3
		Functions	Functions	characteristics	MCC9-12.F.IF.5
				Key Vocabulary: holes in graphs of rational functions	MC9-12.F.IF.7d(+)
			Transform rational	- Examples on graphing and identifying those	
			functions by changing	functions with holes in their graphs	
			parameters	Classwork/Homework: pg. 211 #33-38 (graph each)	
	Thursday, 1/14	6-4: Rational	Review	Students will work in groups to review concepts from 6-4	MCC9-12.F.BF.3
		Functions			MCC9-12.F.IF.5
					MC9-12.F.IF.7d(+)
	Friday, 1/15	6-4 Test	Assessment	6-4 Test	MCC9-12.F.BF.3
				•••••••	MCC9-12.F.IF.5
					MC9-12.F.IF.7d(+)

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WEEK	DAY	CONCEPT	OBJECTIVES	INSTRUCTIONAL STRATEGIES	STANDARDS (CCGPS, GPS, AP)
Week 3	Monday, 1/18			MLK HOLIDAY	
	Tuesday, 1/19	7-1: Radical	Graph radical functions	Warm Up: evaluate radical parent function for different	MCC9-12.F.IF.5
		Functions	and inequalities	values of x and graph the points	MCC9-12.F.IF.7b
				Key Vocabulary: radical function, square root function,	MCC9-12.F.BF.3
			Transform radical	vertical compression, horizontal compression	
			functions by changing	 Discuss transformations of radical functions (focus 	
			parameters	on compressions since we did not do this with	
				rational functions)	
				 Talk about the shape of radical functions 	
				Homework: pg. 232 #8-16 (list transformations only)	
	Wednesday, 1/20	7-1: Radical	Graph radical functions	Warmup: List the transformations of a square root function	MCC9-12.F.IF.5
		Functions	and inequalities	 Have students develop square root function by 	MCC9-12.F.IF.7b
				taking the inverse of x^2	MCC9-12.F.BF.3
			Transform radical	 Discuss domain and range of square root function 	
			functions by changing	 Create chart of transformations 	
			parameters	 Notes on graphing square root functions using 	
				transformations	
				Homework: p. 232 #30-38	
	Thursday, 1/21	7-1: Radical	Graph radical functions	Warmup: Graph a square root function	MCC9-12.F.IF.5
		Functions	and inequalities	 Discuss domain and range of cube root function 	MCC9-12.F.IF.7b
				 Create chart of transformations 	MCC9-12.F.BF.3
			Transform radical	 Notes on graphing cube root functions using 	
			functions by changing	transformations	
			parameters	Homework: p. 232 #5-7, 27-29	
	Friday, 1/22	7-1: Radical	Graph radical functions	Warmup: Graph a cube root function	MCC9-12.F.IF.5
		Functions	and inequalities		MCC9-12.F.IF.7b
				Classwork: Students will work on a worksheet involving	MCC9-12.F.BF.3
			Transform radical	graphing square root and cube root functions and listing their	
			functions by changing	transformations.	
			parameters		

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WEEK	DAY	CONCEPT	OBJECTIVES	INSTRUCTIONAL STRATEGIES	STANDARDS (CCGPS, GPS, AP)
Week 4	Monday, 1/25	7-1: Radical	Graph radical functions	Warmup: List the domain and range of a square root and	MCC9-12.F.IF.5
		Functions	and inequalities	cube root function	MCC9-12.F.IF.7b
				- Review Homework	MCC9-12.F.BF.3
			Transform radical	 Notes on Inequalties 	
			functions by changing	 Notes on graphing radical inequalities 	
			parameters	Homework: p. 232 #20-23, 43-46	
	Tuesday, 1/26	7-1: Radical	Graph radical functions	Warmup: Graph a radical inequality	MCC9-12.F.IF.5
		Functions	and inequalities	- Review Homework	MCC9-12.F.IF.7b
				 Notes on writing radical functions based on 	MCC9-12.F.BF.3
			Transform radical	transformations	
			functions by changing	Homework: p. 232 #17-18, 39-41	
			parameters		
	Wednesday, 1/27	7-1: Radical	Review	Classwork: Students will work in groups to review concepts	MCC9-12.F.IF.5
	Performance Essay	Functions		from 7-1 including graphing radical functions and writing	MCC9-12.F.IF.7b
	English			radical functions based on transformations	MCC9-12.F.BF.3
	Thursday, 1/28	7-1: Radical	Assessment	7-1 Quiz	MCC9-12.F.IF.5
		Functions			MCC9-12.F.IF.7b
					MCC9-12.F.BF.3
	Friday, 1/29	7-2: Solving	Solve radical equations	Warm Up: Solve quadratic by square root method	MCC9-12.A.REI.2
		Radical	and inequalities	Key Vocabulary: radical equation, radical inequality	
		Equations &		 Notes on solving equations with one radical 	
		Inequalities		 Independent practice on this concept 	
				 Notes on solving equations with two radicals 	
				Homework: p. 241 (27-35)	

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WEEK	DAY	CONCEPT	OBJECTIVES	INSTRUCTIONAL STRATEGIES	STANDARDS (CCGPS, GPS, AP)
Week 5	Monday, 2/1	7-2: Solving Radical Equations & Inequalities	Solve radical equations and inequalities	 Warm Up: extraneous solution check Key Vocabulary: radical equation, radical inequality Review homework Have students solve an equation with an extraneous solution to see if they catch it Notes on solving equations with rational exponents Notes on solving radical inequalities Classwork: 5 problems to turn in 	MCC9-12.A.REI.2
	Tuesday, 2/2	7-2: Solving Radical Equations & Inequalities	Solve radical equations and inequalities	Homework: p. 241-243 (36-44) Warmup: Solve a radical inequality Classwork: Students will work on a carousel activity in pairs to review solving radical equations and inequalities	MCC9-12.A.REI.2
	Wednesday, 2/3	Ch. 7 Review	Assessment	Classwork: Students will work in groups to review all concepts from ch. 7	MCC9-12.F.IF.5 MCC9-12.F.IF.7b MCC9-12.F.BF.3 MCC9-12.A.REI.2
	Thursday, 2/4	Ch. 7 Test	Assessment	Module 7 Test	MCC9-12.F.IF.5 MCC9-12.F.IF.7b MCC9-12.F.BF.3 MCC9-12.A.REI.2
	Friday, 2/5	Benchmark Review		Benchmark Review – collaborative pairs/groups	All previous standards

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WEEK	DAY	CONCEPT	OBJECTIVES	INSTRUCTIONAL STRATEGIES	STANDARDS (CCGPS, GPS, AP)
Week 6	Monday, 2/8	Benchmark		Benchmark Review – collaborative pairs/groups	All previous
Benchmark	ENGLISH	Review			standards
Week #1	Tuesday, 2/9	Benchmark		Benchmark #1	All previous
	MATH	Review			standards
	Wednesday, 2/10	8-2: Inverses of		Warm Up: Solving an equation for y in terms of x	MCC9-12.F.BF.4c
	ELECTIVES	Relations &		Key Vocabulary: inverse relation, inverse function	MCC9-12.F.BF.4a
		Functions		 Notes on graphing inverse relations over the line y=x 	MCC9-12.A.CED.2
				- Graph relations then graph their inverse identifying	
				domain and range of each	
				- Write inverses of functions using inverse operations	
				Homework: pg. 269 #2-13, 18,19	
	Thursday, 2/11	8-2: Inverses of		Warm Up: Write the inverse of a function	MCC9-12.F.BF.4c
	SCIENCE	Relations &		 Notes on graphing linear functions and their 	MCC9-12.F.BF.4a
		Functions		inverses over the line y=x	MCC9-12.A.CED.2
				Homework: pg. 270 #14-16, 20-28	
	Friday, 2/12	8-1: Exponential	Write and evaluate	Warm Up: Evaluating exponential functions	MCC9-12.F.IF.7e
	SOCIAL STUDIES	Functions,	exponential expressions	Key Vocabulary: exponential function, base, asymptote,	MCC9-12.A.CED.2
		Growth & Decay	to model growth and	exponential growth & decay	
			decay	 Notes on identifying growth vs decay 	
				 Discuss exponential functions and what they look 	
				like	
				 Discuss asymptotes 	
				Classwork: pg. 261 #2-4, 7-9 (also add in problems on	
				finding the asymptote)	

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TEACHER(S): Justin Johnson, Matt Jones, Kristina Oldeen					

WEEK	DAY	CONCEPT	OBJECTIVES	INSTRUCTIONAL STRATEGIES	STANDARDS (CCGPS, GPS, AP)			
Week 7	Monday, 2/15							
	Tuesday, 2/16		Winter Holiday					
	Wednesday, 2/17							
	Thursday, 2/18							
	Friday, 2/19		FACULTY AND STAFF PROFESSIONAL LEARNING DAY / STUDENT HOLIDAY					

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WEEK	DAY	CONCEPT	OBJECTIVES	INSTRUCTIONAL STRATEGIES	STANDARDS (CCGPS, GPS, AP)
Week 8	Monday, 2/22	Review	Assessment	Warmup: Write and graph the inverse of a linear function	MCC9-12.F.IF.7e MCC9-12.A.CED.2
				Classwork: Students will work in groups to review inverse functions, writing inverses, and identifying growth and decay.	MCC9-12.F.BF.4c MCC9-12.F.BF.4a
	Tuesday, 2/23	8-1: Exponential Functions, Growth & Decay	Write and evaluate exponential expressions to model growth and decay	 Warm Up: Questions covering growth & decay concepts Key Vocabulary: exponential function, base, asymptote, exponential growth & decay Notes on graphing exponential functions Notes on finding the domain and range of exponential functions Homework: Assign students problems to graph 	MCC9-12.F.IF.7e MCC9-12.A.CED.2
	Wednesday, 2/24 Performance Essay Math			Math Performance Essay	
	Thursday, 2/25	8-1: Exponential Functions, Growth & Decay	Write and evaluate exponential expressions to model growth and decay	 Warm Up: Graph and list the domain and range of an exponential function Key Vocabulary: exponential function, base, asymptote, exponential growth & decay Solving word problems using exponential functions Discuss how to solve these using a calculator Homework: worksheet with word problems 	MCC9-12.F.IF.7e MCC9-12.A.CED.2
	Friday, 2/26	Review	Assessment	Classwork: Students will work in groups to review all concepts from 8-1 and 8-2 including exponential functions, writing inverses, graphing inverses, and solving word problems	MCC9-12.F.IF.7e MCC9-12.A.CED.2 MCC9-12.F.BF.4c MCC9-12.F.BF.4a

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WEEK	DAY	CONCEPT	OBJECTIVES	INSTRUCTIONAL STRATEGIES	STANDARDS (CCGPS, GPS, AP)
Week 9	Monday, 2/29	8.1-8.2 Quiz	Assessment	8.1-8.2 Quiz	MCC9-12.F.IF.7e MCC9-12.A.CED.2 MCC9-12.F.BF.4c MCC9-12.F.BF.4a
	Tuesday, 3/1	8-3: Logarithmic Functions	Write equivalent forms for exponential and logarithmic functions	 Warm Up: Review rational exponents from 1st semester Key Vocabulary: logarithm, common logarithm Notes on logarithms as inverses of exponential expressions/equations Examples on converting from Exponential to Logarithmic Form and vice-versa Evaluating logarithms using mental math/operations Homework: pg. 277 #2-13, 17-28 	MCC9-12.F.BF.5+
	Wednesday, 3/2 Performance Essay Social Studies	8-3: Logarithmic Functions	Write equivalent forms for exponential and logarithmic functions	Warm Up: pg. 280 #19-31 odd Students will complete review problems from section 8-3 found in the student workbook	MCC9-12.F.BF.5+
	Thursday, 3/3	Ch. 8 Review	Assessment	Review for Module 8 test – students will work in collaborative pairs/groups in order to complete the assignment/activity	All module 8 standards
	Friday, 3/4	Ch. 8 Test	Assessment	Module 8 Test	All module 8 standards

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WEEK	DAY	CONCEPT	OBJECTIVES	INSTRUCTIONAL STRATEGIES	STANDARDS (CCGPS, GPS, AP)
Week 10	Monday, 3/7	9-1: Properties of Logarithms	Use properties to simplify logarithmic expressions	 Warm Up: Use warm up on PowerPoint presentation CD Notes on Product Property, Quotient Property, Inverse, and Power Property of Logarithms Examples of simplifying logarithms using properties Homework: pg. 288 #1-14, 20-24 	MCC9-12.F.BF.5+ MCC9-12.F.IF.8b
	Tuesday, 3/8	9-1: Properties of Logarithms	Use properties to simplify logarithmic expressions Translate between logarithms in any base	Review of Homework - Notes on Change of Base Formula Classwork/Homework: pg. 288-9 #25-34, 37-45, worksheet on expanding and condensing logs	MCC9-12.F.BF.5+ MCC9-12.F.IF.8b
	Wednesday, 3/9	9-2: Exponential & Logarithmic Equations & Inequalities	Solve exponential and logarithmic equations	 Warm Up: Simplifying Logarithmic Expressions Key Vocabulary: exponential & logarithmic equations Notes on solving exponential equations using common bases and logarithms Homework: pg. 296 #2-16 all 	MCC9-12.F.LE.4 MCC9-12.F.BF.5+
	Thursday, 3/10	9-2: Exponential & Logarithmic Equations & Inequalities	Solve exponential and logarithmic equations	 Warm Up: Review previous night's homework Solving logarithmic equations using properties and exponents to rewrite Classwork: Students will add the following to previous night's homework – pg. 296 #21-33 	MCC9-12.F.LE.4 MCC9-12.F.BF.5+
	Friday, 3/11	Review	Assessment	Classwork: Students will work on a worksheet in pairs to practice concepts from 9.1-9.2, this will be turned in for a grade	MCC9-12.F.LE.4 MCC9-12.F.BF.5+ MCC9-12.F.IF.8b

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WEEK	DAY	CONCEPT	OBJECTIVES	INSTRUCTIONAL STRATEGIES	STANDARDS (CCGPS, GPS, AP)
Week 11	Monday, 3/14		FACULTY AND ST	AFF PROFESSIONAL LEARNING DAY / STUDENT HOLIDAY	
	Tuesday, 3/15	9-3: The Natural	Solve equations and	Warmup: Solve a logarithmic equation	MCC9-12.F.BF.5+
		Base, e	problems involving e or	 Notes on simplifying expressions with e or In 	MCC9-12.A.CED.2
			natural logarithms	 Solving logarithmic and exponential equations with 	
				e and In	
				Homework: pg. 302 #6-12, 17-22	
	Wednesday, 3/16	9-3: The Natural	Solve equations and	Review previous night's homework	MCC9-12.F.BF.5+
	Performance Essay	Base, e	problems involving e or	 Notes on solving word problems using logarithmic 	MCC9-12.A.CED.2
	Science		natural logarithms	and exponential equations (include problems with e	
				and In)	
				Homework: worksheet on solving word problems	
	Thursday, 3/17	9-3: The Natural	Solve equations and	Warm Up: pg. 306 #1-33 odd	MCC9-12.F.BF.5+
	Early Release	Base, e	problems involving e or	Students will complete review of section 9-3 from the	MCC9-12.A.CED.2
	Professional		natural logarithms	student workbook	
	Learning				
	(1 st , 2 nd , 3 rd , 5 th)				
	Friday, 3/18	9-3: The Natural	Solve equations and	Warm Up: pg. 306 #1-33 odd	MCC9-12.F.BF.5+
	Early Release	Base, e	problems involving e or	Students will complete review of section 9-3 from the	MCC9-12.A.CED.2
	Professional		natural logarithms	student workbook	
	Learning				
	(7 th , 6 th , 4 th , 5 th)				

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WEEK	DAY	CONCEPT	OBJECTIVES	INSTRUCTIONAL STRATEGIES	STANDARDS (CCGPS, GPS, AP)
Week 12	Monday, 3/21	Ch. 9 Review	Review	Review of Module 9 – assign pg. 306 #2-32 even	All module 9
					standards
				Use supplemental materials if necessary to keep students	
				engaged throughout the period	
	Tuesday, 3/22	Ch. 9 Test	Assessment	TEST MODULE 9	All module 9
					standards
	Wednesday, 3/23	12-3: Piecewise	Write and graph	Warm Up: Use warm up given on teacher PowerPoint	MCC9-12.F.IF.4
		Functions	piecewise functions.	Key Vocabulary: piecewise function, step function	MCC9-12.F.IF.2
				- Create a table and a verbal description to represent	MCC9-12.F.IF.7b
			Use piecewise functions	the graph of piecewise/step functions	MCC9-12.A.CED.2
			to describe real-world	 Evaluate piecewise functions 	
			situations.	 Graph step functions 	
				Homework: pg. 394 #2-7	
	Thursday, 3/24	12-3: Piecewise	Write and graph	Warm Up: pg. 400 #4-7	MCC9-12.F.IF.4
		Functions	piecewise functions.	- Graph piecewise functions involving linear functions	MCC9-12.F.IF.2
				 Examples on real-world problems incorporating 	MCC9-12.F.IF.7b
			Use piecewise functions	piecewise functions	MCC9-12.A.CED.2
			to describe real-world	Homework: pg. 394-5 #9-19 (linear only)	
			situations.		
	Friday, 3/25	12-3: Piecewise	Write and graph	Warmup: Example of evaluating a piecewise quadratic	MCC9-12.F.IF.4
		Functions	piecewise functions.	function	MCC9-12.F.IF.2
				 Graph piecewise functions involving quadratic 	MCC9-12.F.IF.7b
			Use piecewise functions	functions	MCC9-12.A.CED.2
			to describe real-world	Homework: pg. 394-5 #9-19 (include quadratics)	
			situations.		

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Week 13	Monday, 3/28	12-3: Piecewise	Write and graph	Classwork: Students will work individually to review graphing	MCC9-12.F.IF.4	
		Functions	piecewise functions.	and evaluating all piecewise functions.	MCC9-12.F.IF.2	
					MCC9-12.F.IF.7b	
			Use piecewise functions		MCC9-12.A.CED.2	
			to describe real-world			
			situations.			
	Tuesday, 3/29	Quiz on 12.3	Assessment	Quiz over 12.3 (include evaluating and graphing piecewise	MCC9-12.F.IF.4	
				functions)	MCC9-12.F.IF.2	
					MCC9-12.F.IF./b	
	Mada and ave 2/20	12.1.	Transforme notice	Marrie Line Deview of Evener extial Eventions	MCC9-12.A.CED.2	
	Wednesday, 3/30	13-1: Transforming	functions	Bayiou of transformations from linear & guadratia	MICC9-12.F.BF.3	
	Freezy	Polynomial	TUTICUOTIS	functions previously learned		
	Electives	Functions		- Examples on translating polynomial functions		
	Licetives	T directoris		- Show how to reflect polynomial functions over the x		
				and v axes		
				- Examples on how to compress and stretch		
				polynomial functions		
				Homework: pg. 407 #1-12		
	Thursday, 3/31	13-1:	Transform polynomial	Warm Up: Exponential Function review	MCC9-12.F.BF.3	
		Transforming	functions	 Word problem examples on interpreting 	MCC9-12.F.BF.1	
		Polynomial		transformations in polynomial equations		
Functions Classwork/Homework: pg. 407-8 #13-25						
			SPRING	BREAK!		
			Friday, 4/1 -	→ Friday, 4/8		

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Week 14 Benchmark Week #2	Monday, 4/11	Review	Review	We will do an activity today to review concepts from 12.3 and 13.1. We will be working on piecewise functions and transforming polynomial functions. Students will complete a worksheet to turn in.	
	Tuesday, 4/12	13-1: Transforming Polynomial Functions	Graph Absolute Value Functions Identify characteristics of absolute value functions and their graphs	Review previous night's homework - Notes on graphing absolute value functions and describing the transformations Homework: 13.1 Extension problems	MCC9-12.F.BF.3 MCC9-12.F.IF.7b
	Wednesday, 4/13 SCIENCE	Review		We will do an activity today to review end behavior and adding/subtracting rational expressions. Students were weak in these areas, and we need to focus on them prior to the SLO.	
	Thursday, 4/14 SOCIAL STUDIES	Benchmark Review		Benchmark Review – students will work in collaborative pairs/groups to complete review assignment or activity	
	Friday, 4/15 ELECTIVES	Benchmark Review		Benchmark Review – students will work in collaborative pairs/groups to complete review assignment or activity	

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Week 15	Monday, 4/18	Benchmark		Benchmark Review – students will work in collaborative	
Benchmark	ENGLISH	Review		pairs/groups to complete review assignment or activity	
Week #2	Tuesday, 4/19	Benchmark (SLO)		BENCHMARK #2 (SLO)	
	MATH				
	Wednesday, 4/20	13-2: Transforming Exponential and Logarithmic Functions		 Warm Up: Use warm up given on teacher PowerPoint CD Key Vocabulary: exponential function, logarithmic function Show examples on translating exponential and logarithmic functions using the equation f(x)=a(b)^x Show examples of reflecting, stretching, and compressing exponential and logarithmic functions Classwork/Homework: pg. 418 #2-14 even, pg. 419 #16-30 even 	MCC9-12.F.BF.3
	Thursday, 4/21	Ch. 12/13 Review	Review	Classwork: Students will work together in pairs to review concepts from chapter 12 and 13.	MCC9-12.F.IF.4 MCC9-12.F.IF.2 MCC9-12.F.IF.7b MCC9-12.A.CED.2 MCC9-12.F.BF.3 MCC9-12.F.BF.1
	Friday, 4/22	Ch. 12/13 Test	Assessment	Test Module 13 and 12.3	MCC9-12.F.IF.4 MCC9-12.F.IF.2 MCC9-12.F.IF.7b MCC9-12.A.CED.2 MCC9-12.F.BF.3 MCC9-12.F.BF.1

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WEEK	DAY	CONCEPT	OBJECTIVES	INSTRUCTIONAL STRATEGIES	STANDARDS (CCGPS, GPS, AP)
Week 16	Monday, 4/25	14-1: Operations	Add, subtract, multiply	Warm Up: Rational function/foil review	MCC9-12.F.BF.1b
		With Functions	and divide functions	 Notes on adding and subtracting functions 	
				 Notes on multiplying and dividing functions 	
				Classwork/Homework: pg. 438 #2-7 and 15-23	
	Tuesday, 4/26	14-1: Operations	Write and evaluate	Warm Up: Use warm up on PowerPoint presentation CD	MCC9-
		With Functions	composite functions	Key Vocabulary: composition of functions	12.F.BC.1c(+)
				 Notes on composition of functions 	
				 Evaluating and writing composite functions (use a 	
				variety of functions)	
				Homework: pg. 438 #8-13, 24-32	
	Wednesday, 4/27	14-1: Operations	Review	Review previous night's homework	MCC9-12.F.BF.1b
		With Functions			MCC9-
				Classwork: Students will complete a worksheet to practice	12.F.BC.1c(+)
				operations with functions and compositions of functions	
	Thursday, 4/28	14-2: Functions &	Determine whether the	Warm Up: Graph an exponential and logarithm with the	MCC9-
		Their Inverses	inverse of a function is a	same base to preview inverse functions	12.F.BF.4b(+)
			function	 Notes on using the horizontal line test to determine whether the inverse of a relation is a function 	MCC9-12.F.BF.4
			Write rules for the	 Notes on writing rules for inverses of functions 	
			inverses of functions	Homework: pg. 445-6 #1-6, 9-17	
	Friday, 4/29	14-2: Functions &		Determine which material from 14-2 needs to be re-	
		Their Inverses		delivered or earlier material that must be reviewed before	
				approaching test	
				This day may also be used as an additional "buffer" day in	
				case the pacing of the calendar is off	

COURSE: Advanced Algebra

SEMESTER: Spring 2016

WEEK	DAY	CONCEPT	OBJECTIVES	INSTRUCTIONAL STRATEGIES	STANDARDS (CCGPS, GPS, AP)
Week 17	Monday, 5/2	Ch. 14 Review	Review	Review of Module 14 – students may work in collaborative	All module 14
				pairs/groups to complete review assignment/activity	standards
				Assign students pg. 450 #1-19, 22-31 for review	
	Tuesday, 5/3	Ch. 14 Test	Assessment	TEST MODULE 14	All module 14 standards
	Wednesday, 5/4	2-1: Significance of Experimental Results	Use simulations and hypothesis testing to compare treatments from a randomized experiment	 Warm Up: Use warm up exercises on teacher PowerPoint CD Key Vocabulary: hypothesis testing, null hypothesis Notes on when hypothesis testing is used and the definition of a null hypothesis Show students how to use box and whisker plots to support/disprove null hypotheses Classwork/Homework: pg. 39 & 40 #3,4,7-9 	MCC9-12.S.IC.5
	Thursday, 5/5	2-1: Significance of Experimental Results	Use simulations and hypothesis testing to compare treatments from a randomized experiment	Warm Up: pg. 66 #2-3 Key Vocabulary: z-value, z-test - Notes on definition of a z-value/z-test - Notes on using a z-test to reject or accept a null hypothesis - Use example 2 on pg. 38 Classwork/Homework: pg. 40 & 41 #5,6,11-13	MCC9-12.S.IC.6
	Friday, 5/6	2-1: Significance of Experimental Results	Use simulations and hypothesis testing to compare treatments from a randomized experiment	Review previous night's homework Classwork: Students will complete a worksheet to review hypothesis testing using both box and whisker plots and z- test	MCC9-12.S.IC.5 MCC9-12.S.IC.6
AP Exams Monday, 5/2 – AP Chem, AP Enviro Science, and AP Psych Tuesday, 5/3 – AP Spanish Language Wednesdays, 5/4 – AP English Literature Thursday, 5/5 – AP Calculus Friday, 5/6 – AP US History, AP Studio Art			h 	Milestones To be determined.	

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WEEK	DAY	CONCEPT	OBJECTIVES	INSTRUCTIONAL STRATEGIES	STANDARDS (CCGPS, GPS, AP)
Week 18	Monday, 5/9	2-2: Sampling	Estimate the population	Warm Up: Use the warmup given on teacher PowerPoint CD	MCC9-12.S.IC.3
		Distributions	means and proportions	Key Vocabulary: simple random, systematic, stratified,	MCC9-12.S.IC.4
			and develop margins of	cluster, convenience, self-selected, probability, margin of	
			error from simulations	error	
			involving random	 Notes on types of samples and how to classify a 	
			sampling	sample (use book and PowerPoint examples)	
				- Show chart on probability sampling identifying most	
			Analyze surveys,	accurate vs least accurate types	
			experiments, and	- Show examples of how to evaluate the best type of	
			observational studies to	sampling method to be used in a survey	
			judge the validity of	- Notes on how to interpret margin of error	
	T 5/40		conclusions	Homework: pg. 48-50 #2-22	
	Tuesday, 5/10	2-3: Fitting to a	Use tables to estimate	Warm Up: Review of 2-1 (null hypothesis & z-test)	MCC9-12.5.ID.4
		Normal	areas normal curves	Key Vocabulary: standard normal value/curve, "bell" curve	
		Distribution	Bocognizo data coto that	- Notes on estimating probabilities using a normal	
			are not normal	Notes on using standard normal values (7 score)	
			are not normal	- Notes on determining whether data may be	
				normally distributed	
				Homework: $pg 55 \& 56 #2-19$	
	Wednesday 5/11	2-3. Fitting to a	Use tables to estimate	Review previous night's homework	MCC9-12 S ID 4
	Weanesday, 5, 11	Normal	areas normal curves		
		Distribution		Classwork: Students will complete a worksheet to practice	
			Recognize data sets that	finding z-scores and using them to estimate probabilities	
			are not normal		
	Thursday, 5/12	2-1 thru 2-3	Review	Warm Up: pg. 66 #4-7	MCC9-12.S.IC.3
				Use student workbook to identify problems for review. Have	MCC9-12.S.IC.4
				students work in collaborative pairs.	MCC9-12.S.ID.4
	Friday, 5/13	Quiz 2-1 thru 2-3		QUIZ 2-1 thru 2-3	
AP Exams				Milestones	
Monday, Ma	y 9 – AP Biology and A	P Music Theory		To be determined.	

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Tuesday, May 10 – AP Government	
Wednesday, May 11– AP English Language and AP Macroeconomics	
Thursday, May 12 – AP World History and AP Statistics	
Friday, May 13 – AP Human Geography	

WEEK	DAY	CONCEPT	OBJECTIVES	INSTRUCTIONAL STRATEGIES	STANDARDS (CCGPS, GPS, AP)
Week 19	Monday, 5/16	2-4: Analyzing	Explain that probability	Warm Up: Use warmup given in teacher PowerPoint CD	MCC9-
		Decisions	can be used to help	Key Vocabulary: probability, expected value	12S.MD.3(+)
			determine if good	- Notes on definition of probability	MCC9-
			decisions are made	 Notes on finding expected value 	12.MD.5b(+)
				- Examples on using expected value in real-world	
			Use probabilities to	situations	
			analyze decisions and		
			strategies	Homework: pg. 62-63 #2-23	
	Tuesday, 5/17	Ch. 2 Review	Review	Review for Module 2 Test. Students will work on review in	All module 2
				collaborative pairs or groups	standards
	Wednesday, 5/18	Ch. 2 Test	Assessment	TEST MODULE 2	All module 2
					standards
	Thursday, 5/19	Exam Review		Exam Review-TBD	
	Friday, 5/20	Exam Review		Exam Review-TBD	

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WEEK	DAY	CONCEPT	OBJECTIVES	INSTRUCTIONAL STRATEGIES	STANDARDS (CCGPS, GPS, AP)	
Week 20	Monday, 5/23	Senior Exams (Benchmark #3 – 5 th , 6 th , & 7 th)				
Benchmark	Tuesday, 5/24	Senior Exams (Benchmark #3 – 1 st , 2 nd , 3 rd , & 4 th) / Semester Exams (Benchmark #3 – 7 th)				
Week #3	Wednesday, 5/25	Semester Exams (Benchmark #3 – 1 st & 2 nd)				
	Thursday, 5/26		Ser	nester Exams (Benchmark #3 – 3 rd & 4 th)		
	Friday, 5/27		Ser	nester Exams (Benchmark #3 – 5 th & 6 th)		