

## Advanced Functions and Modeling (AFM) Unit Plan

Unit	# of days	Section	Topic	SCOS
<b>Probability</b>	2	12--1	Randomness & Probability	1.03, 1.03c
	3	12--2	Counting Outcomes & Tree Diagrams	1.03a, 1.03e
	2	12--3	Mutually Exclusive Events & Venn Diagrams	1.03e
	2	12--4	Random Variables & Expected Value	1.03d
	2	12--5, 12--6	Permutations & Combinations	1.03b
	2	12--7	The Binomial Theorem, Expansion, & Bionomial Distribution	1.03f
	2		Review & Test	
	15	Total Number of Days		
	15	Cumulative Number of Days		
<b>Statistics</b>	2	2--1	Measures of Central Tendency, 5 Number Summary, & Box Whisker Plots	1.02c, 1.02e
	1	2--2	Measures of Spread	1.02c, 1.02e
	2	2--3	Histograms & Percentile Rank	1.02e
	1	13--2, 13--3	Normal Distributions & z-scores	1.02d
	2		Review & Test	
	8	Total Number of Days		
	23	Cumulative Number of Days		

<b>Sequences &amp; Recursion</b>	1.5	11--1	Arithmetic Sequences & Series	2.05a
	1.5	11--2	Geometric Sequences & Series	2.05b,
	2	1--1	Recursively Defined Sequences	2.05c
	1	1--2	Modeling Growth and Decay	2.05
	1	1--3, 1--4	Long-Run Value & Graphing Sequences	2.05d
	2		Review & Test	2.05c
	9		Total Number of Days	
32		Cumulative Number of Days		
2		Review & Cumulative Test 1		
34		Cumulative Number of Days		
<b>Functions</b>	1		Parent Functions(Polynomials) & End Behavior	1.01
	1		Domain & Range	1.01
	4		Piecewise Functions	2.02
	2		Modeling Data	1.01
	2	4--4, 4--5, 4--6	Transformations of Functions	2
	2		Review & Test	
	12		Total Number of Days	
46		Cumulative Number of Days		
<b>Exponential &amp; Logarithmic Functions</b>	3	5--1	Exponential Functions, Applications, and Modeling	1.01, 2.01
	1	5--6	Logarithmic Functions	2.01a, 2.02b
	1	5--7	Properties of Logarithms	2.01
	1	5--8	Applications of Logarithms	2.01
	2		Review & Test	
8		Total Number of Days		
54		Cumulative Number of Days		

	2		Review and Cumulative Test #2	
	56		Cumulative Number of Days	
<b>Triangle Trig</b>	2	8--3	Right Triangle Trig	Review
	2	8--6	Law of Sines & Applications	2.04c
	3	8--7	Law of Cosines & Applications	2.04c
	2		Review & Test	
	9		Total Number of Days	
	65		Cumulative Number of Days	
<b>Trig Functions</b>	1	10--1	Defining Circular Functions	2.04
	1	10--2	Radian Measure and Arc Length	2.04
	2	10--3	Graphing and Transformations of Trig Functions	2.04b
	2	10--5	Modeling with Trig Functions	1.01
	2		Review & Test	
	8		Total Number of Days	
	73		Cumulative Number of Days	