Advanced Topics in Math

Main Topics	Rationale	Outside Requirements	Grade Composition
(What main ideas/concepts will be	(Why should a student take this	(What are students expected to	(How are grades determined?):
covered?):	course?	do outside of class?)	
Polynomials & Rational Expressions	A student should take this course	Homework is given most nights.	Homework
Complex Numbers	to strengthen and deepen skills	Most assignments can be	
Relations & Functions	covered in previous math courses.	completed in 30 – 45 minutes.	Class work
Exponential & Logarithmic Functions	Students will also be introduced	Often students will have time in	
Circles	to new topics that will help to make them stronger and more	class to start work on these	Quizzes
Right Triangle Trigonometry Probability & Statistics	well rounded math students. This	assignments.	Tests
Sequences & Series	course should help the student to	A formal assessment of a quiz or	Tests
Matrices	be more successful in future	test is approximately once per	
Matrices	college level math courses	week. Students will need to	
	whether taken in high school or	spend time studying to prepare	
	college. It is also good for	for these assessments.	
	SAT/ACT math preparation.	Tor these assessments.	
	SATIFACT Matri preparation.		
Prerequisite Courses	Materials	Required Skills	
(What courses should be taken prior	(What materials will students	(What skills are necessary to be successful in this course?)	
to taking this course?)	need to bring to class?)		
		Reading/Comprehension	
Algebra 1	Notebook		
Geometry		Analytical thinking	
Algebra 2	Graph Paper		
		Basic Algebra and Geometry skills	
	Scientific Calculator		
	Paper and Pencil		