

## MIDDLE GRADES PROGRAM- MATH ACADEMIC CONCENTRATION/ TEACHING FIELD REQUIRED COURSES

*Students are encouraged to select courses from University Studies to fulfill requirements in both the Academic Concentration and the Additional Teaching Field.*

**Academic Concentration: 24 hours  
Courses**

**Teaching Field: 18 Hours of Core  
Courses**

Core Courses (18 hours)		Hou rs	Also counts as:	Pre-requisites:
MAT 112 OR	Trigonometry	3	Univ. Studies IC or IV C	MAT 111 or placement exam
MAT 115	Precalculus (preferred course)			Placement Exam
MAT 161	Basic Calculus with Applications	4	Univ. Studies IC or IV C	MAT 111 or MAT 115
STT 215	Introduction to Statistics	3	Univ. Studies IC or IV C	Placement exam or MAT 105
MAT 243	Concepts and Applications of Discrete Mathematics	3		MAT 142 & MAT 151 or MAT 161
MAT 245 * FALL ONLY	Euclidian Geometry (preferred course)	3	Univ. Studies IV A	Co-requisite MAT 275
or MAT 346*	(if MAT 245 not available) Historical Development of Mathematics			
MAT 275	Axiomatic Systems	3		Pre-requisite MAT 152 or MAT 161
<i>Plan ahead for MAT 245 in fall of odd years (2013, 2015). If not available MAT 346 can be taken in an even year.</i>				
<b>Selected Courses** (total 6 hours)</b>				
MAT 141	Basic Concepts of Mathematics I	3	Univ. Studies IC or IV C	MAT 105 or placement test
MAT 142	Basic Concepts of Mathematics II	3	Univ. Studies IC OR IV C	MAT 105 or placement test
MAT 162	Calculus with Analytic Geometry II	4	Univ Studes IV C	MAT 161
MAT 345	Modern College Geometry	3		MAT 275 or consent of instructor
Any statistics course (STT 315 or higher)		3		See online course catalog

**#Artifact exists in this course.**

**\*\* Candidates may substitute 3 credit hours from study abroad or International Studies course.**

**05/2013**