2013-2014 Mathematics-Secondary Education Concentration

NAME _____ **ID#**_____

CORE CURRICULUM – 43-44 Semester Hours (SH)

UNIVERSITY CORE

A. Core Foundations

CORE 101	_____	**3**
CORE 102	_____	**3**
CORE 103*	_____	**3**
CORE 201	_____	**3**
CORE 202	_____	**3**

NOTE: Courses listed in multiple areas can only be used to fulfill a single area requirement.

Students can use only one course with their major prefix to fulfill core requirements.

*** Honors course – will replace CORE 101 & 102 for those students in the RU honors program**

B. Core Skills & Knowledge

Courses must be from different disciplines:

MATHEMATICAL SCIENCES (3 SH)
MATH 151 **3**

NATURAL SCIENCES (4 SH)
_____ _____ _____ **4**
One of the following: **ASTR** 111, 112 **BIOL** 103, 104, 105 **CHEM** 101: 102, 120 **GEOL** 100, 105: 106 **PHYS** 111: 112, 221: 222

HUMANITIES (3 SH)
_____ _____ _____ **3**
One of the following: **ENGL** 200; **HIST** 101, 102 **PHIL** 111, 112, 114; **POSC** 110; **RELN** 111, 112, 203, 206

VISUAL & PERFORMING ARTS (3 SH)
_____ _____ _____ **3**
One of the following: **ART** 111, 215, 216 **CVPA** 266, **DNCE** 111 **MUSC** 100, 121, 123 **THEA** 100, 180

SOCIAL/BEHAV. SCIENCES (3 SH)
_____ _____ _____ **3**
One of the following: **ANSC** 101, **APST** 200 **ECON** 105, 106 **GEOG** 101, 102, 103 **HIST** 111, 112 **POSC** 120 **PSYC** 121 **RELN** 205 **SOCY** 110, 121

COLLEGE CORE

A. National & International Perspectives

Courses must be from different disciplines:

U. S. PERSPECTIVES (3 SH)
_____ _____ _____ **3**
One of the following: **APST** 200 **ECON** 101, 105, 106, **ENGL** 203 **GEOG** 201, 202, 203 **HIST** 111, 112 **POSC** 120, **SOCY** 110

GLOBAL PERSPECTIVES (3 SH)
_____ _____ _____ **3**
One of the following: **CVPA** 266, **ENGL** 201; **FORL** 103; **GEOG** 101, 102, 140, 280 **HIST** 101, 102 **INST** 101 **ITEC** 112 **PEAC** 200 **RELN** 112, 205, **SOCY** 121,**THEA** 180 **WMST** 101

B. Supporting Skills & Knowledge

NATURAL SCI. OR MATHEMATICAL SCIENCES (3-4 SH)
_____ _____ _____ **3-4**
One of the following: **ASTR** 111, 112 **BIOL** 103, 104, 105 **CHEM** 101: 102, 120 **GEOL** 100, 105:106 **PHYS** 111: 112, 221:222 **OR MATH** 111:112, 114, 116, 125, 132, 137, 138, 151:152 **STAT** 200

HUMANITIES, VISUAL & PERFORMING ARTS, OR FOREIGN LANGUAGES (3-4 SH)
_____ _____ _____ **3-4**
One of the following: **ENGL** 200 **HIST** 101, 102 **PHIL** 111, 112, 114; **POSC** 110; **RELN** 111, 112, 203, 206 **Or ART** 111, 215, 216; **CVPA** 266; **DNCE** 111 **MUSC** 100, 121, 123 **THEA** 100, 180 **Or CHNS** 101: 102, 201: 202 **FORL** 100, 109, 200, 209, 210, 309, 409; **FREN** 100, 200:210, 300, 320 **GRMN** 100, 200: 210, 300 **LATN** 101, 201, 350; **RUSS** 100, 200, 210,. 300; **SPAN** 101: 102, 201, 202

SOCIAL/ BEHAV. SCI. OR HEALTH & WELLNESS (3 SH)
_____ _____ _____ 3
One of the following: **ANSC** 101**, APST** 200 **ECON** 105, 106 **GEOG** 101, 102, 103 **HIST** 111, 112 **POSC** 120 **PSYC** 121 **RELN** 205 **SOCY** 110**,** 121 **HLTH** 111,200 **NURS** 111 **NUTR** 214 **RCPT** 200

Secondary Education CONCENTRATION

MATH 160 is HIGHLY recommended for all MATH majors

* A grade of C or better is required for any course with an asterisk

					Prerequisites
*MATH	151	_____ (3)	Calculus and Analytic Geometry I	F/S	Math SAT ≥ 550,or college pre-calc ≥ "C" or ALEKS
*MATH	152	_____ (3)	Calculus and Analytic Geometry II	F/S	MATH 151
*MATH	251	_____ (3)	Calculus and Analytic Geometry III	F/S	MATH 152
*MATH	252	_____ (3)	Calculus and Analytic Geometry IV	F/S	MATH 251
MATH	135	_____ (3)	Fundamentals of Geometry	F	Math major or permission of instructor
MATH	142	_____ (3)	Discrete Mathematics	S	
MATH	260	_____ (3)	Introductory Linear Algebra	F/S	
MATH	300	_____ (3)	Mathematical Foundations	F/S	MATH 142 or ITEC 122, and MATH 152, and any Math course numbered 200 or above or permission of instructor
MATH	321	_____ (3)	History of Mathematics	S	MATH 135, 142, or ITEC 122, and MATH 251
MATH	325	_____ (3)	Special Methods Secondary Math Education	S	STAT 301 and MATH 251
MATH	412	_____ (3)	Theory of Numbers	S	MATH 300
MATH	423	_____ (3)	Concepts of Abstract Algebra	F	MATH 300
STAT	301	_____ (3)	Probability and Statistics I	F/S	MATH 152
HUMD	300	_____ (3)	Human Growth and Development	F/S/SU	2.5 GPA
EDEF	320	_____ (3)	Introduction to Professional Education	F/S/SU	2.5 GPA, Pre or Co- req: HUMD 300
EDSP	404	_____ (3)	Introduction to Special Education	F	Admission to the teacher education program
EDRD	416	_____ (3)	Content Reading and Literacy	F	Admission to the teacher education program
EDUC	440	_____ (3)	Teaching Grades 6-12.	F	Co-req: EDUC 441, EDRD 416, EDET 445
EDUC	441	_____ (3)	Field Experience for Grades 6-12	F	Co-req: EDUC 440, EDRD 416, EDET 445, EDSP 404
EDET	445	_____ (3)	Integration of Educational Technology	F	
EDUC	442	_____ (3)	Teaching Grades 9-12.	S	Pre-req: EDUC 440 & 441, EDRD 416, EDET 445
EDUC	452	_____ (12)	Student Teaching	S	Meet eligibility for student teaching

Sample Schedule B.A./B.S. Mathematics–Secondary Education Concentration 13/14

Fall Semester		Spring Semester	
Freshman Year	**Cr.**	**Freshman Year**	**Cr.**
University Core A: Core 101	3	University Core A: Core 102	3
*MATH 151 Math SAT ≥ 550,or college pre-calc ≥ "C" or ALEKS exam	3	*MATH 152 MATH 151	3
MATH 135 (F ONLY) Math major or permission of instructor	3	MATH 142 (S ONLY)	3
CORE	3	MATH 260	3
CORE	3	CORE	3
UNIV 100	1		
MATH 160	1		
	17		**15**
Students must receive a grade of "C" or better in courses marked with an asterisk * Any departmental major receiving credit for Math 252 cannot subsequently receive credit for any 100 level Mathematics course.			
Sophomore Year	**Cr.**	**Sophomore Year**	**Cr.**
University Core A: Core 201	3	University Core A: Core 202	3
*MATH 251 MATH 152	3	*MATH 252 MATH 251	3
MATH 300 MATH 142 or ITEC 122 & MATH 152 & any MATH 200 level or above	3	STAT 301 Math 152	3
CORE	3	CORE	3
CORE	3	CORE	3
	15		**15**
CORE 101, 102, 201, and 202 must be completed in succession. Students should complete CORE 202 prior to their junior year. Students apply to the Professional Education Program through the Field Experience Office (540) 831-5277, during their junior year. Students must have a minimum grade point average of 2.5 in all coursework at RU and in their major, passed PRAXIS I and taken PRAXIS II before applying.			
Junior Year	**Cr.**	**Junior Year**	**Cr.**
CORE2	3	MATH 321 (S ONLY) MATH 135, 142, or ITEC 122, and MATH 251	3
MATH 423 (F ONLY) MATH 300	3	MATH 325 (S ONLY) STAT 301 and MATH 251	3
HUMD 300 2.5 overall GPA	3	MATH 412 (S ONLY) MATH 300	3
EDEF 320 2.5 overall GPA, HUMD 300 as co-requisite	3	CORE science	4
FREE ELECTIVE to reach 120 credit hours	3	FREE ELECTIVE to reach 120 credit hours	3
	15		**16**
SAT Taken Prior to April 1, 1995—a score of **1000** with at least **450** on the verbal and **510** on the mathematics test as a substitute for Praxis I. **SAT Taken After April 1, 1995**—a score of **1100** with at least **530** on the verbal and **530** on the mathematics test as a substitute for Praxis I.			
Senior Year-Blocking	**Cr.**	**Senior Year**	**Cr.**
EDSP 404 (F ONLY) Admission to the teacher education prgm.	3	EDUC 442 (S ONLY) EDUC 440 & 441, EDRD 416, EDET 445	3
EDUC 440 (F ONLY) Co-req. EDUC 441, EDRD 416, EDUC 445	3	EDUC 452 Meet eligibility for student teaching	12
EDUC 441 (F ONLY) Co-req. EDUC 440, EDRD 416, EDUC 445	3		
EDRD 416 (F ONLY) Admission to the teacher education prgm.	3		
EDET 445 (F ONLY)	3		
	15		**15**

There are no departmental B.S. requirements for students seeking teaching licensure.

**Students who do NOT seek licensure must take STAT 302, MATH 346 and one additional course within the College of Science and Technology at the 300-level or higher.