MILLERSVILLE UNIVERSITY

Student Name:		Student I.D.#						
DEGREE: MAJOR: OPTION:	BSE MATH	MAJOR REQUIREMENTS FOR A BSE DEGREE IN MATHEMATICS Total credit hours required: 120.0 minimum						
	REQUIREMEN	TS AND POLICIES FOR THE BSE MATHEMATICS MAJOR						
A. Polic 1. 2. 3.	ies for Admissio New students (fres Office of Admission Admission into the chairperson of the courses already ta Non-degree and co by the Office of Ad Mathematics.	n to the Major shmen and transfers) must be admitted to the Mathematics major by the ns upon admission to the University. Mathematics major from other departments is upon approval of the Department of Mathematics. A "C-" or better in MATH 161 and all Math ken which count toward a Mathematics major is required for admission. ontinuing education students must be admitted to the Mathematics major missions, subject to approval by the chairperson of the Department of						
 B. Policies for Retention in the Major 1. University requirements for retention. 2. A Mathematics major taking any Math course required as a prerequisite for a later Math course must earn a grade of "C-" or better in that course before being admitted to the later course for which it is a prerequisite. 3. Periodically, a Mathematics major's progress will be reviewed in accordance with the "Department Evaluation of Majors" policy stated in the University catalog. A student who does not demonstrate satisfactory progress will be notified of the department's concern. Subsequent notifications may result in being terminated as a major in the department. 								
C. Polic 1. 2. 3.	ies for Completion Completion of all L Any student in the MATH 405 prior to teaching, a math n MATH 161, 211, 3 Additionally, prior t	Dn of the Major Jniversity curricular requirements. BSE Mathematics program must earn a grade of "C-" or better in student teaching. In order to receive a departmental approval for student najor must attain at least a "C-" in each of the prerequisites for MATH 405: 10, 311, 322, 333, 345, and 353 or 355. To student teaching, each student is subject to a departmental review.						
D. Admi All studen Studies al in their ini requireme ments is a	ission to Advanc its enrolled in teach nd meet Pennsylva tial Advanced Profe ents in order to be c available in each de	ed Professional Studies and Certification (Education Majors) er preparation programs must be admitted to Advanced Professional nia State requirements and university requirements prior to being enrolled essional course. Students must meet additional Pennsylvania State ertified. A listing of Advanced Professional Studies courses and require- epartment office, the Field Services office, and the Field Services website.						
Note to the be aware of	student: This form i changes and curricul							

MAJOR SEQUENCE AND DEGREE REQUIREMENTS

Major: **BSE MATHEMATICS** Option: Major Field Requirements: **46.0- 50.0 credits** Other Requirements: **35.0 credits**

When applicable, up to six of the **REQUIRED RELATED** courses may be credited toward the Liberal Arts Core subject to normal distribution rules.

REQUIRED MATHEMATICS COURSES (36-37.0 credits) Professional Education Courses (27.0 credits) MATH 11 Calculus I' 4.0	Course No.	Short Title	C.H.	Grade	Course No).	Short Title	C.H.	Grade	
MATH 161 Calculus I' 4.0	REQUIRED	MATHEMATICS COURSES (3	Professional Education Courses (27.0 credits)							
MATH 211 Calculus II 4.0 EDFN 241 Psych Foundations of Teaching 3.0 MATH 310 Intro Mathematical Proof 3.0 EDFN 241 Psych Foundations of Teaching 3.0 MATH 310 Intro Mathematical Proof 3.0 EDFN 241 Psych Foundations of Teaching 3.0 MATH 310 Intro Mathematical Proof 3.0 EDSE 321 Issues in Secondary Education 3.0 MATH 322 Linear Algebra I 4.0 EDSE 340 Content Area Literacy 3.0 3.0 MATH 351 Survey of Geometry 3.0 EDSE 471 Differentiating Instruction 3.0 3.0 -OR- - - EDMA 461 Student Teaching 9.0 - MATH 405 Teaching Math Second School 5.0 - FEQUIRED RELATED COURSES (8.0 credits) - MATH 405 Teaching Math Second School 5.0 - REQUIRED RELATED COURSES (8.0 credits) - MATH 405 Teaching Math Second School 5.0 - - - - - With permission, MATH 161 Honors Calculus I may be taken in place of MATH 161. -	MATH 161	Calculus I*	4.0		EDEN	211	Foundations Modern Education	30		
MATH 301 History of Mathematics 3.0	MATH 211	Calculus II	4.0			211	Psych Foundations of Teaching	1 3.0		
MATH 310 Calculus III A.0 MATH 312 Claculus III 4.0 MATH 312 Linear Algebra I 4.0 MATH 322 Linear Algebra I 3.0 MATH 3145 Abstract Algebra I 3.0 MATH 315 Stratch Algebra I 3.0 MATH 3153 Survey of Geometry 3.0 OR -MATH 355 Transformational Geometry 3.0 MATH 405 Feaching Math Second School 5.0 MATH 4464 Real Analysis I 3.0 With permission, MATH 163 Honors Calculus I may be taken in place of MATH 161. REQUIRED RELATED COURSES (8.0 credits) CSCI 161 Intro to Programming I 4.0	MATH 301	History of Mathematics	3.0			271		j 5.0		
MATH 311 Calculus III 4.0	MATH 310	Intro Mathematical Proof	3.0		EDSE	321	Issues in Secondary Education	3.0		
MATH 322 Linear Algebra I 4.0	MATH 311	Calculus III	4.0			521		0.0	<u> </u>	
MATH 345 Abstract Algebra 1 3.0	MATH 322	Linear Algebra I	4.0		EDSE	340	Content Area Literacy	3.0		
MATH 353 Survey of Geometry 3.0	MATH 345	Abstract Algebra I	3.0		SPED	346	Sec Students w/Disabilities	3.0		
MATH 353 Survey of Geometry 3.0						010		0.0		
-OR- MATH 355 Transformational Geometry 3.0 EDMA 461 Student Teaching 9.0 MATH 405 Teaching Math Second School 5.0 .0 REQUIRED RELATED COURSES (8.0 credits) WMTH 464 Real Analysis I 3.0 CSCI 161 Intro to Programming I 4.0 "With permission, MATH 163 Honors Calculus I may be taken in place of MATH 161. ELECTIVE COURSES - No Declared Option (10.0-12.0 credits) CSCI 161 Intro to Programming I 4.0 A. Statistics Requirements (4.0-6.0 credits) MATH 335 Intro Probability & Statistics I 3.0 oR MATH 335 Mathematical Statistics I 3.0 MATH 335 Transformational Geometry 3.0 MATH 355 Intro Combinatorics 3.0 MATH 375 Numerical Analysis 3.0 MATH 375 Numerical Analysis I 3.0 MATH 457 Elem. Differential Equations 3.0	MATH 353	Survey of Geometry	3.0		EDSE	471	Differentiating Instruction	3.0		
MATH 355 Transformational Geometry 3.0	OR				FDMA	461	Student Teaching	9.0		
MATH 405 Teaching Math Second School 5.0	MATH 355	Transformational Geometry	3.0				ottaonit rodoning	0.0		
MATH 464 Real Analysis 1 3.0	MATH 405	H 405 Teaching Math Second School 5.0				REQUIRED RELATED COURSES (8.0 credits)				
"With permission, MATH 163 Honors Calculus I may be taken in place of MATH 161. 4.0 ELECTIVE COURSES - No Declared Option (10.0-12.0 credits) CSCI 140 Discrete Structures 4.0 A. Statistics Requirements (4.0-6.0 credits) MATH 333 Intro Probability & Statistics 4.0	MATH 464	Real Analysis I	3.0			164	Intro to Drogramming I	4.0		
taken in place of MATH 161. CSCI 140 Discrete Structures 4.0 ELECTIVE COURSES - No Declared Option (10.0-12.0 credits) 4.0 A. Statistics Requirements (4.0-6.0 credits)	*With perm	ssion, MATH 163 Honors Calcu	lus I ma	iy be		101	Intro to Programming I	4.0		
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and MATH 435 Mathematical Statistics II 3.0 B. Additional Electives (6.0 credits) MATH 353 Survey of Geometry 3.0 MATH 355 Transformational Geometry 3.0 MATH 365 Ord. Differential Equations 3.0 MATH 370 Operations Research 3.0 MATH 375 Numeircal Analysis 3.0 MATH 395 Intro Combinatorics 3.0 MATH 432 Linear Algebra II 3.0 MATH 445 Abstract Algebra II 3.0 MATH 445 Real Analysis II 3.0 MATH 4467 Partial Differential Geometry 3.0	MATH 335	Mathematical Statistics I	3.0							
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