

# MILLERSVILLE UNIVERSITY

Student Name: \_\_\_\_\_ Student I.D.# \_\_\_\_\_

DEGREE: BSE	<b>MAJOR REQUIREMENTS FOR A BSE DEGREE IN</b>
MAJOR: MATH	<b>MATHEMATICS</b>
OPTION:	Total credit hours required: 120.0 minimum

## REQUIREMENTS AND POLICIES FOR THE BSE MATHEMATICS MAJOR

### A. Policies for Admission to the Major

1. New students (freshmen and transfers) must be admitted to the Mathematics major by the Office of Admissions upon admission to the University.
2. Admission into the Mathematics major from other departments is upon approval of the chairperson of the Department of \_\_\_\_\_ 11. University requirements for 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. Policies for Completion of the Major

1. Completion of all University curricular requirements.
2. Any student in the BSE Mathematics program must earn a grade of "C-" or better in MATH 405 prior to student teaching. In order to receive a departmental approval for student teaching, a math major must attain at least a "C-" in each of the prerequisites for MATH 405: MATH 161, 211, 310, 311, 322, 333, 345, and 353 or 355.
3. Additionally, prior to student teaching, each student is subject to a departmental review.

### D. Admission to Advanced Professional Studies and Certification (Education Majors)

All students enrolled in teacher preparation programs must be admitted to Advanced Professional Studies and meet Pennsylvania State requirements and university requirements prior to being enrolled in their initial Advanced Professional course. Students must meet additional Pennsylvania State requirements in order to be certified. A listing of Advanced Professional Studies courses and requirements is available in each department office, the Field Services office, and the Field Services website.

Note to the student: This form is provided as a guide. It is your responsibility to consult regularly with your advisor to be aware of changes and curriculum details which are not incorporated on this form.

## 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.

Course No.	Short Title	C.H.	Grade	Course No.	Short Title	C.H.	Grade
<b>REQUIRED MATHEMATICS COURSES (36-37.0 credits)</b>				<b>Professional Education Courses (27.0 credits)</b>			
MATH 161	Calculus I*	4.0	_____	EDFN 211	Foundations Modern Education	3.0	_____
MATH 211	Calculus II	4.0	_____	EDFN 241	Psych Foundations of Teaching	3.0	_____
MATH 301	History of Mathematics	3.0	_____	EDSE 321	Issues in Secondary Education	3.0	_____
MATH 310	Intro Mathematical Proof	3.0	_____	EDSE 340	Content Area Literacy	3.0	_____
MATH 311	Calculus III	4.0	_____	SPED 346	Sec Students w/Disabilities	3.0	_____
MATH 322	Linear Algebra I	4.0	_____	EDSE 471	Differentiating Instruction	3.0	_____
MATH 345	Abstract Algebra I	3.0	_____	EDMA 461	Student Teaching	9.0	_____
MATH 353	Survey of Geometry	3.0	_____	<b>REQUIRED RELATED COURSES (8.0 credits)</b>			
<b>--OR--</b>				CSCI 161	Intro to Programming I	4.0	_____
MATH 355	Transformational Geometry	3.0	_____	CSCI 140	Discrete Structures	4.0	_____
MATH 405	Teaching Math Second School	5.0	_____				
MATH 464	Real Analysis I	3.0	_____				
*With permission, MATH 163 Honors Calculus I may be taken in place of MATH 161.							
<b>ELECTIVE COURSES - No Declared Option (10.0-12.0 credits)</b>							
<b>A. Statistics Requirements (4.0-6.0 credits)</b>							
MATH 333	Intro Probability & Statistics	4.0	_____				
<b>--OR--</b>							
MATH 335	Mathematical Statistics I	3.0	_____				
<b>--and--</b>							
MATH 435	Mathematical Statistics II	3.0	_____				
<b>B. Additional Electives (6.0 credits)</b>							
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	Numerical Analysis	3.0	_____				
MATH 393	Number Theory	3.0	_____				
MATH 395	Intro Combinatorics	3.0	_____				
MATH 422	Linear Algebra II	3.0	_____				
MATH 445	Abstract Algebra II	3.0	_____				
MATH 457	Elem. Differential Geometry	3.0	_____				
MATH 465	Real Analysis II	3.0	_____				
MATH 467	Partial Differential Equations	3.0	_____				
MATH 471	Mathematical Modeling	3.0	_____				
MATH 472	Financial Mathematics	3.0	_____				
MATH 483	Point - Set Topology	3.0	_____				
MATH 4__	Topics in _____	_____	_____				
MATH 535	Statistical Methods I	3.0	_____				
MATH 536	Statistical Methods II	3.0	_____				
MATH 566	Complex Variables	3.0	_____				
MATH 592	Graph Theory	3.0	_____				