MILLERSVILLE UNIVERSITY

Student Name:_____ Student I.D.#_____

DEGREE: BSE
MAJOR: MATH
OPTION:

MAJOR REQUIREMENTS FOR A BSE DEGREE IN MATHEMATICS

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 Mathematics. A "C-" or better in MATH 161 and all Math courses already taken which count toward a Mathematics major is required for admission.
3. Non-degree and continuing education students must be admitted to the Mathematics major by the Office of Admissions, subject to approval by the chairperson of the Department of Mathematics.

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. 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
REQUIRED MATHEMATICS COURSES (36-37.0 credits)			
MATH 161	Calculus I*	4.0	____
MATH 211	Calculus II	4.0	____
MATH 301	History of Mathematics	3.0	____
MATH 310	Intro Mathematical Proof	3.0	____
MATH 311	Calculus III	4.0	____
MATH 322	Linear Algebra I	4.0	____
MATH 345	Abstract Algebra I	3.0	____
MATH 353	Survey of Geometry	3.0	____
--OR--			
MATH 355	Transformational Geometry	3.0	____
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.

ELECTIVE COURSES - No Declared Option (10.0-12.0 credits)

A. Statistics Requirements (4.0-6.0 credits)

MATH 333	Intro Probability & Statistics	4.0	____
--OR--			
MATH 335	Mathematical Statistics I	3.0	____
--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	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	____

Course No.	Short Title	C.H.	Grade
Professional Education Courses (27.0 credits)			
EDFN 211	Foundations Modern Education	3.0	____
EDFN 241	Psych Foundations of Teaching	3.0	____
EDSE 321	Issues in Secondary Education	3.0	____
EDSE 340	Content Area Literacy	3.0	____
SPED 346	Sec Students w/Disabilities	3.0	____
EDSE 471	Differentiating Instruction	3.0	____
EDMA 461	Student Teaching	9.0	____
REQUIRED RELATED COURSES (8.0 credits)			
CSCI 161	Intro to Programming I	4.0	____
CSCI 140	Discrete Structures	4.0	____