

Montclair State University
Department of Mathematical Sciences
Combined BS Mathematics – MS Statistics Curriculum Guide (GenEd 2002)

A. Undergraduate Requirements

I. Major Requirements	43 s.h.	II. Collateral Requirements	11 s.h.
A. Mathematics Core (19 s.h.)		PHYS 191-192 University Physics I and II	8
MATH 122 Calculus I	4	CMPT 183 Found of Comp Sci I	3
MATH 221 Calculus II	4		
MATH 222 Calculus III	4		
MATH 335 Linear Algebra	4		
MATH 340 Probability	3		
B. Mathematics Specialization (9 s.h.)		III. GenEd Requirement	41-44 s.h.
MATH 280 Transition to Adv Math	3	A. New Student Experience	1
MATH 425 Advanced Calculus I	3	B. Interdisciplinary courses	6
MATH 431 Foundations of Modern Algebra	3	Scientific Issues	
		National Issues or Global Issues	
		C. Communications	9
		C1. College Writing I & II	
		C2. Fundamentals of Speech	
		D. Fine and Performing Arts	3
		E. World Languages	3-6
		F. Humanities	6
		F1. World Literature/General Humanities	
		F2. Philosophy/Religion	
		G. Computer Science	<i>CMPT 183 (0)</i>
		H. Math	<i>MATH 122, 221 (0)</i>
		I. Natural/Physical Science	<i>PHYS 191 (0)</i>
		J. Physical Education	1
		K. Social Science	9
		American/European History	
		Non-Western Culture	
		Social Science	
		L. Gen Ed Elective	3
		IV. Free electives	13-16 s.h.
		(Total required undergraduate credits for the combined BS-MS program)	111 s.h.)

* Required for combined BS-MS program

ADDITIONAL CURRICULAR SUGGESTIONS

--- Students who have taken high school courses in Calculus or Computer Science may receive advanced standing with credit based upon either the Advanced Placement Exams or departmental exams. Consult the Undergraduate Advisor for further details.

--- Students are urged to take as many additional courses as possible in the areas of computer science, statistics, business administration, economics and natural sciences. This will insure maximum flexibility in employment opportunities and professional growth.

--- Students may elect to do independent study in advanced areas of mathematics under MATH 495 "Topics in Mathematics for Undergraduates" and statistics under STAT 495 "Topics in Statistics for Undergraduates."

--- Students interested in the honors program in mathematics should contact the department chairperson.

NOTES

This worksheet, the Montclair State University undergraduate catalog, and the semester schedule of courses booklets contain the important advising and academic information necessary for an accurate understanding of the degree requirements. Students with questions are urged to consult undergraduate advisor.

FAILURE TO BE AWARE OF AND FOLLOW UNIVERSITY ACADEMIC AND ADMINISTRATIVE POLICIES AS OUTLINED HERE AND IN THE UNIVERSITY UNDERGRADUATE CATALOG AND SEMESTER SCHEDULE OF COURSES BOOKLETS MAY RESULT IN LOSS OF CREDIT AND/OR DELAYED GRADUATION.

RESTRICTIONS - The following courses MAY NOT BE TAKEN FOR GRADUATION CREDIT BY MATHEMATICS MAJORS: MATH 100, MATH 103, MATH 106, MATH 109, MATH 113, MATH 114, MATH 116, MATH 270, INFO 270, MGMT 273.

PASS/FAIL LIMITATIONS - Those courses that meet the major, collateral, teacher certification, or general education requirements may not be taken pass/fail.

MULTICULTURAL AWARENESS REQUIREMENT - All students are required to take one course that satisfies the university multicultural awareness requirement. Refer to the current university undergraduate catalog for a complete listing of acceptable courses.

PREREQUISITES - It is the student's responsibility to ensure that courses are taken in the academically correct order. A current list of prerequisites for these and other courses may be found in the current university undergraduate catalog or through the office of the offering department.

BASIC SKILLS - Students placed into basic skills courses as a result of the MSU Placement Test are required to enroll in those courses the first semester and continue in sequence each semester until required work is completed. All basic skills course work is counted in the cumulative grade-point-average, but only ENGL 100 "Basic Composition" may be used toward the 120 credits degree requirement.

FINAL EVALUATION - Students who are eligible for graduation must file an "Application for Final Evaluation" in the Office of the Registrar according to the following deadlines: October 1 for May graduation, March 1 for August graduation, June 1 for January graduation.

RESIDENCE REQUIREMENTS - A minimum of 32 credits must be taken at MSU. This must include at least 18 credits of mathematical science courses in the major, of which at least 12 credits must be at the junior (300-399) or senior level (400-499). The last 24 credits must be taken at MSU and cannot be acquired through transfer.

FREE ELECTIVES - Free electives are defined as credits not applicable to general education or major requirements. The exact number of free electives required by an individual student is dependent upon the collateral sequence chosen in the major (see. p.1 and 2).

B. Graduate Requirements

I. Statistics Core 15 s.h.

- STAT 542 Statistical Theory I
- STAT 543 Statistical Theory II
- STAT 544 Statistical Computing
- STAT 547 Design of Experiments
- STAT 548 Applied Regression Analysis

II. Statistics Electives 12 s.h.

- A. Select one of the following courses:
STAT 640, 646, or 648
- B. Select 3 courses from:
STAT 545, 546, 549-599, or 640-699
(STAT 698 required if a thesis is chosen as the capstone requirement.)

III. Comp. Sci., Math. and/or Stat. Electives 6 s.h.

- STAT 552 Intermediate Statistical Methods *
- STAT 597 Research Methods in Stat. Science *
- * Required for combined BS-MS program.

IV. Capstone Requirement (Select option A or B) 0 s.h.

- A. Thesis (Required for students pursuing the Ph.D. in Biostatistics at UMDNJ; highly recommended for others)
- B. Comprehensive Examination (Three-hour written examination in statistics)

Total required graduate credits 33 s.h.

Total required credits for the combined BS Mathematics – MS Statistics program 144 s.h.

A student who withdraws from the program can graduate with a bachelor's degree by completing requirements for the BS Mathematics.