Catalog Year 2019-2020: MA.BS

Bachelor of Science in Mathematics

MAJOR REQUIREMENTS/MATHEMATICS: 43 Credits		Credits
	MA-120: Introduction to Mathematical Reasoning	4.0
	MA-125: Calculus with Analytic Geometry I	4.0
	MA-126: Calculus with Analytic Geometry II	4.0
	MA-221: Linear Algebra	3.0
	MA-225: Calculus with Analytic Geometry III	4.0
	MA-220: Probability and Statistics I	3.0
	MA-415: Real Analysis	3.0
	Take 3 Credits from the Following Courses:	3.0
	MA-314: Number Theory	
	MA-317: Geometry	
	MA-318: Combinatorics and Graph Theory	
	Take 3 Credits from the Following Courses:	3.0
	MA-410: Modern Algebra	
	MA-411: Group Theory	
	Take 12 Credits from Mathematics (MA) from levels 300+, 400+;	12.0
	***AND* Completing 1 Grouping from the Following:**	
	MA-314: Number Theory **and** MA-410: Modern Algebra	
	MA-410: Modern Algebra **and** MA-411: Group Theory	
	MA-413: Complex Analysis **and** MA-415: Real Analysis	
	MA-407: Topology **and** MA-415: Real Analysis	
	MA-311: Differential Equations **and** MA-419: Intro. to Math Modeling	
	MA-320: Probability & Stat. II **and** MA-421: Design of Experiments & ANOVA	

INTERDISCIPLINARY REQUIREMENTS: 11 to 14 Credits		Credits
	MA-237: Prog. & Tech. in Mathematics	
	OR	
	CS-175: Intro to Computer Science I	
	and CS-175L: Intro to Computer Science I Lab	
AND either		
8 credits as follows:	CE-111: General Chemistry I	3.0
	CE-111L: General Chemistry I Lab	1.0
	CE-112: General Chemistry II	3.0
	CE-112L: General Chemistry II Lab	1.0
OR		
10 credits as follows:	PH-211: General Physics with Calculus I	4.0
	PH-211L: General Physics with Calculus I Lab	1.0
	PH-212: General Physics with Calculus II	4.0
	PH-212L: General Physics with Calculus II Lab	1.0
OR		
8 credits as follows:	BY-109: Introduction to Biodiversity and Evolution	4.0
	BY-110: Introduction to Cell and Molecular Biology	4.0

FREE ELECTIVES: 32 to 35 Credits	Credits
_____	32 - 35.0
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MONMOUTH UNIVERSITY CURRICULUM CHART

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Bachelor of Science in Mathematics

GENERAL EDUCATION REQUIREMENTS: 33 to 39 Credits		Credits
First Year Seminar	FY-101: First Year Seminar	3.0
Reading and Writing	EN-101: College Composition I	3.0
	EN-102: College Composition II	3.0
Mathematics	Fulfilled in Major Requirements with required MA courses	0.0
Natural Sciences	Fulfilled in Interdisciplinary Requirements w/ BY, CE, or PH courses	0.0
Literature	3 Credits from courses designated with Course*Type: LIT	3.0
Aesthetics and Creativity	3 Credits from Art, Music, Theatre, or Dance	3.0
Technological Literacy	3 Credits from courses designated with Course*Type: TL*	0.0 - 3.0
	**(May be fulfilled in Major requirements with MA-237)*	
Reasoned Oral Discourse	3 Credits from courses designated with Course*Type: RD*	0.0 - 3.0
	**(May be fulfilled in Major requirements with MA-314)*	
Historical Perspective	3 Credits from courses designated with Course*Type: HS.SV	3.0
Social Science	3 Credits from courses designated with Course*Type: SS.SV	3.0
Historical Perspective/Social Sciences	3 Credits from courses designated with Course*Type: HS.SV	3.0
	or 3 Credits from courses designated with Course*Type: SS.SV	
Interdisciplinary Perspectives	3 Credits from courses designated with Course*Type: ISP	3.0
Cultural Diversity and Global Understanding or Foreign Language	3 Credits from courses designated with Course*Type: CD	6.0
	and 3 Credits from courses designated with Course*Type: GU	
	or 6 Credits from the SAME foreign language	
Experiential Education	One course designated with Course*Type: EX	0.0
Writing Intensive	Two courses from Mathematics (MA) designated	0.0
	with Course*Type: WT	0.0

Minimum Credits for Bachelor of Science in Mathematics = 128.0

NOTES:

*** 58 credits must be completed at the 200 level or higher.**