BSC. MAJOR IN MATHEMATICS

The Department of Computer Science, Mathematics & Physics offers a Double Major, Major and Minor in Mathematics.

It is a requirement of the discipline that, to pass any Mathematics course, students must pass the Final exam and attain an overall course grade of more than 50%.

Provided below is a complete list of all the courses offered in the Major in Mathematics:

MAJOR IN MATHEMATICS:

LEVEL I

MATH1141 Introductory Linear Algebra & Analytical Geometry
MATH1152 Sets and Number Systems
MATH1190 Calculus A
MATH1195 Calculus B
MATH1235 Python Programming & Mathematical Software

LEVEL II

MATH2304 Multivariable Calculus
MATH2310 Abstract Algebra 1
MATH2315 Linear Algebra 1
MATH2321 Real Analysis 1
MATH2305 Differential Equations

LEVEL III

MATH3543 Abstract Algebra 2
MATH3545 Linear Algebra 2
MATH3550 Real Analysis 2
AND
MATH3555 Complex Analysis
OR
MATH3560 Metric Spaces

AND Three (3) Credits) from Mathematics Elective Courses:

MATH2325 Elementary Number Theory
MATH2330 Probability Theory 1
MATH2335 Statistics 1
MATH3555 Complex Analysis
MATH3560 Metric Spaces
MATH3565 Probability Theory 2

MATH3570 Statistics 2
MATH3575 Topics in Numerical Analysis
MATH3580 Fourier Analysis with Partial Differential Equations
MATH3600 Topics in Discrete & Computational Geometry
MATH3605 Topics in Graph Theory
MATH3620 Financial Mathematics 1
MATH3621 Financial Mathematics 2
MATH3955 Mathematics Internship

MINOR IN MATHEMATICS [Fifteen (15) Credits at Level II]:

LEVEL II

MATH2304 Multivariable Calculus
MATH2310 Abstract Algebra 1
MATH2315 Linear Algebra 1
MATH2321 Real Analysis 1
MATH2305 Differential Equations

DOUBLE MAJOR IN MATHEMATICS:

LEVEL I

MATH1141 Introductory Linear Algebra & Analytical Geometry
MATH1190 Calculus A
MATH1195 Calculus B
MATH1152 Sets and Number Systems
MATH1235 Python Programming & Mathematical Software
MATH1230 Introductory Applied Statistics 1

LEVEL II

MATH2304 Multivariable Calculus
MATH2305 Differential Equations
MATH2310 Abstract Algebra 1
MATH2315 Linear Algebra 1
MATH2321 Real Analysis 1
MATH2330 Probability Theory 1
MATH2335 Statistics 1

LEVEL III

MATH3543 Abstract Algebra 2
MATH3545 Linear Algebra 2
MATH3550 Real Analysis 2
AND
MATH3555 Complex Analysis
OR
MATH3560 Metric Spaces

AND Twenty-Seven (27) credits from Mathematics Elective Courses:

MATH2325 Elementary Number Theory
MATH3555 Complex Analysis
MATH3560 Metric Spaces
MATH3565 Probability Theory 2
MATH3570 Statistics 2
MATH3575 Topics in Numerical Analysis
MATH3580 Fourier Analysis with Partial Differential Equations
MATH3600 Topics in Discrete & Computational Geometry
MATH3605 Topics in Graph Theory
MATH3590 Research Project in Mathematics
MATH3955 Mathematics Internship

Equivalences between Old and New Mathematics Courses For the Purpose of Fulfilling Major and Minor Requirements.

Previous 4-Credit Course	New 3-Credit Course
MATH1101 Basic Mathematics I	MATH1152 Sets and Number Systems
MATH1102 Basic Mathematics II	MATH1141 Introductory Linear Algebra & Analytical Geometry
MATH1110 Applied Statistics	MATH1230 Introductory Applied Statistics 1
MATH1120 Calculus I	MATH1190 Calculus A (and part of MATH1195)
MATH1130 Calculus II	MATH1195 Calculus B (and part of MATH2304)
No Equivalence	MATH1235 Python Programming & Mathematical Software
MATH2100 Abstract Algebra	MATH2310 Abstract Algebra 1
MATH2110 Linear Algebra	MATH2315 Linear Algebra 1
MATH2120 Analysis & Methods 1	MATH2321 Real Analysis 1 (and part of MATH3550)
MATH2130 Ordinary Differential Equations	MATH2305 Differential Equations
MATH2140 Probability Theory	MATH2330 Probability Theory 1
MATH2150 Mathematical Statistics	MATH2335 Statistics 1
MATH3160 Number Theory	Math2325 Elementary Number Theory
MATH3100: Multivariate Analysis	No Equivalence
MATH3120: Numerical Analysis	MATH3575: Topics in Numerical Analysis
MATH3130: Optimization Theory	No Equivalence
MATH3140: Fourier Analysis & PDE	MATH3580: Fourier Analysis with Partial Differential Equations
MATH3150: Complex Variables 1	MATH3555: Complex Analysis
MATH3170: Advanced Algebra	MATH3543: Abstract Algebra 2
MATH3180: Introduction to Topology	MATH3560: Metric Spaces
MATH3190: Matrix Analysis	MATH3545: Linear Algebra 2
MATH3220: Sampling Theory	No Equivalence
MATH3300: Mathematics Research Project	MATH3590: Research Project in Mathematics
MATH3375: Discrete & Computational Geometry	MATH3600: Topics in Discrete & Computational Geometry
MATH3400: Graph Theory	MATH3605: Topics in Graph Theory
MATH3450: Statistical Theory 1	MATH3565: Probability Theory 2
MATH3460: Statistical Theory 2	MATH3570: Statistics 2
No Equivalence	MATH3620: Financial Mathematics 1
No Equivalence	MATH3621: Financial Mathematics 2

For further details on the Mathematics programme, contact Dr. Mechelle Gittens, Head of the Department of Computer Science, Mathematics and Physics, via email at mechelle.gittens@cavehill.uwi.edu, or via telephone at (246) 417-4465 or (246) 417-4365.