

	Minimum Hrs Required	Course(s) Fulfilled		Minimum Hrs Required	Course(s) Fulfilled			
<b>REQUIRED COURSEWORK</b>			<b>SUPPLEMENTARY COURSEWORK:</b>					
<b>FOUNDATIONAL COURSEWORK</b>			<b>6 hours selected from the following:</b>					
<b>3 hours selected from the following IBL coursework as designated in the Course Schedule:</b>			M 365D Real Analysis II M 367K Topology I M 367L Topology II M 362M Introduction to Stochastic Processes M 373L Algebraic Structures II M 378K Introduction to Mathematical Statistics					
M 325K		Discrete Mathematics (must be IBL or II)						
M 328K		Introduction to Number Theory (must be IBL or II)						
M 333L		Structure of Modern Geometry (must be IBL or II)						
<b>3 hours selected from the following:</b>			<b>6 hours selected from the following:</b>					
M 340L		Matrices and Matrix Calculations	M 343K Introduction to Algebraic Structures M 343L Applied Number Theory M 346 Applied Linear Algebra M 348 Scientific Computation in Numerical Analysis  M 358K Applied Statistics M 361 Theory of Functions of a Complex Variable  M 361K Introduction to Real Analysis M 362M Introduction to Stochastic Processes M 365C Real Analysis I M 365D Real Analysis II M 367K Topology I M 367L Topology II M 368K Numerical Methods for Applications M 372K Partial Differential Equations and applications  M 373K Algebraic Structures I M 373L Algebraic Structures II M 378K Introduction to Mathematical Statistics  M 374M Mathematical Modeling in Science and Engineering  M 378N Generalized Linear Models M 339D Introduction to Financial Mathematics for Actuaries  M 339G Predictive Analytics M 339J Probability Models with Actuarial Applications  M 339U Actuarial Contingent Payments I M 339V Actuarial Contingent Payments II M 349P Actuarial Statistical Estimates M 349R Applied Regression and Time Series M 378P Decision Analytics M 375D Discovery: An Introduction to Advanced Study in Mathematics					
M 341		Linear Algebra and Matrix Theory						
M 343K		Introduction to Algebraic Structures						
M 361K		Introduction to Real Analysis						
M 365C		Real Analysis I						
M 373K		Algebraic Structures I						
<i>With approval of the certificate program faculty, other appropriate courses may be counted toward the certificate requirements.</i>								