



Study plan of the Bachelor of science in Financial Mathematics and Actuarial Program (Total Program Credit Hours = 132 & Total Program Contact hours = 146)

First Year							
First level				Second level			
Code	Course Name	Hr	Requisite	Code	Course Name	Hr	Requisite
0212ISCL-2	Mediocrity and Moderation	2	----	0291vol-2	Volunteering Skill	2	----
0221ARAB-2	Arabic Skills	2	----	1300PHYS-3	General Physics	3	1101PHYS-1
0522ENGL-5	English Language	5	----	1101PHYS-1	General Physics Lab	1	1300PHYS-3
1300CHEM-3	General Chemistry 1	3	----	1300BIO-3	General Biology Science	3	1101BIO-1
1110CHEM-1	General Chemistry 1 Lab	1	----	1101BIO-1	General Biology Science Lab	1	1300BIO-3
1400MATH-4	Pre-Calculus	4	----	1411MATH-4	Calculus1	4	1400MATH-4
Total		17		Total		18	

Second Year							
Third level				Forth level			
Code	Course Name	Hr	Requisite	Code	Course Name	Hr	Requisite
2412MATH-4	Calculus 2	4	1411MATH-4	----	Free Course 2	2	----
23**ECON-3	Principle of Economics	3	----	2413MATH-4	Calculus 3	4	2412MATH-4
2342MATH-3	Linear Algebra 1	3	1400MATH-4	2411ACT-4	Mathematical Finance	4	1411MATH-4
2431STAT-4	Introduction to Statistics	4	----	2321MATH-3	Real Analysis 1	3	1441MATH-4
----	Free Course 1	2	----	2361MATH-3	Introduction to Differential Equations	3	2412MATH-4
Total		17		22**CCS-2	Programing with Python	2	----
Total		17		Total		18	

Third Year							
Fifth level				Sixth level			
Code	Course Name	Hr	Requisite	Code	Course Name	Hr	Requisite
----	Elective course 1	2	----	0401COMM-4	Training-1 Job Preparation Skills	4	----
3352MATH-3	Numerical Computation	4	2412MATH-4	3332MATH-3	Elements of Probability Theory	3	2431STAT-4
3321ACT-3	Actuarial Risks-1	3	2411ACT-4	3322ACT-3	Actuarial Lab-1	3	3321ACT-3
3412ACT-4	Computational Finance	4	2411ACT-4	3314ACT-3	Financial Econometrics	3	2431STAT-4
32**ACCT-2	Introduction to Financial Accounting	3	----	3315ACT-3	Mathematical Modeling for Finance	3	3412ACT-4
3313ACT-3	Mathematical Survival Models		----	3423ACT-4	Actuarial Risks-2	4	3321ACT-3
Total		17		Total		20	

Forth Year							
Seventh level				Eighth level			
Code	Course Name	Hr	Requisite	Code	Course Name	Hr	Requisite
4324ACT-3	Theory of Actuarial Risks and Credit	3	3423ACT-4	4899ACT-8	Collaborative Training	8	
4316ACT-3	Financial Derivatives	3	2411ACT-4	Total		8	
4317ACT-3	Time Series Analysis	3	3332MATH-3				
4325ACT-3	Actuarial Lab-2	3	3322ACT-3 +4324ACT-3				
----	Elective program course 1	3	----				
----	Elective program course	3	----				
Total		18					

Elective course

Code	Course Name	Hr	Requisite
4322MATH-3	Real Analysis 2	3	2321MATH-3
4326MATH-3	Special Topics in Analysis and Geometry	3	2321MATH-3
4333STAT-3	Mathematical Statistics	3	3332MATH-3
4318ACT-3	Financial Data Analysis	3	3315ACT-3
4326ACT-3	Stochastic Processes	3	3332MATH-3
4331ACT-3	Game Theory	3	3332MATH-3
4336STAT-3	Statistical Methods for Machine Learning	3	2413MATH-4
****CCS-3	Introduction to Artificial Intelligence	3	****CCS-3
4359MATH-3	Computational Intelligence	3	3412ACT-4
4327ACT-3	Actuarial Mathematical Models	3	3315ACT-3 + 3423ACT
4352MATH-3	Programming with R	3	-----
4332ACT-3	Mathematical Interest Theory	3	3412ACT-4
4319MATH-3	Special Topics in Mathematical Finance	3	3315ACT-3
4358 MATH-3	Introduction to Partial Differential Equations	3	2361MATH-3
4392ACT-3	Field Training	3	3412ACT-4 + 3322ACT-3
43**LAW-3	Business Legal Environment	3	-----
43**BUS-3	Entrepreneurship	3	-----
43**FIN-3	Markets and Financial Institutions	3	-----
43**FIN-3	Fintech	3	-----
43**FIN-3	Investments	3	-----
43**ACCT-3	Managerial Accounting and Financial Reports	3	-----
4391ACT-3	Research Project	3	-----