

BACHELOR OF ACTUARIAL SCIENCE ACADEMIC SESSION 2021/2022 (145 CREDITS)			
UNIVERSITY COURSES (12 CREDITS)			
COURSE CODE	COURSE NAME	CREDITS	
GIG1012 / GLT1017*	Philosophy and Current Issues (local students) / Basic Malay Language (*only for international students)	2	
GIG1013	Appreciation of Ethics and Civilisations	2	
GIG1003	Basic Entrepreneurship Enculturation	2	
GKA/GKI/GKK/ GKP/GKS/GKU	Co-Curriculum	2	
GLTxxxx	English Course (subject to MUET bands)	4	
CORE COURSES (87 CREDITS)			
COURSE CODE	COURSE NAME	PRE-REQUISITE	CREDITS
LEVEL 1 (24 Credits)			
SIX1015	Science, Technology and Society	-	2
SIX1016	Statistics	-	3
SIM1001	Basic Mathematics	-	4
SIM1002	Calculus I	-	4
SIM1003	Calculus II	SIM1002	4
SIQ1001	Introduction to Accounting	-	3
SIT1001	Probability and Statistics I	SIM1002	4
LEVEL 2 (31 Credits)			
SIM2001	Advanced Calculus	SIM1003	4
SIM2002	Linear Algebra	SIM1001	4
SIM2007	Appreciation of Mathematics	SIM1003	2
SIM2011	Structured Programming	SIM1002	4
SIQ2001	Microeconomics	-	3
SIQ2002	Macroeconomics	-	3
SIQ2003	Financial Mathematics and Derivatives	SIM1002	4
SIT2001	Probability and Statistics II	SIT1001	4
SIT2007	Foundations of Data Science	SIT1001	3
LEVEL 3 (32 Credits)			
SIQ3001	Actuarial Mathematics I	SIQ2003	4
SIQ3002	Portfolio Theory and Asset Models	SIQ2003	4
SIQ3003	Actuarial Mathematics II	SIQ3001	4
SIQ3004	Mathematics of Financial Derivatives	SIQ2003	4
SIQ3005	Life Insurance and Takaful		4
SIQ3006	Risk Theory	SIT2001	4
SIQ3007	Industrial Training	SIQ3001	8

<b>ELECTIVE COURSES (46 CREDITS)</b>			
<b>(I) PROGRAM ELECTIVE COURSES (at least 38 CREDITS)</b>			
<b>COURSE CODE</b>	<b>COURSE NAME</b>	<b>PRE-REQUISITE</b>	<b>CREDITS</b>
SIM1004	Fundamentals of Computing	-	3
SIM1005	Fundamentals of Spreadsheets	-	2
SIM1006	Ordinary Differential Equations	SIM1002	4
SIM2010	Numerical Computation	SIM1003	4
SIM2012	Basic Operations Research	SIM1001	4
SIM3021	Mathematical Science Project	SIM2011	4
SIQ3008	Foundation of Islamic Finance		4
SIQ3009	Pension Mathematics	SIQ3001	4
SIQ3010	Survival Models	SIT2001	4
SIQ3011	Business Finance		3
SIQ3012	Financial and Business Management		3
SIQ3013	Stochastic Models	SIT2001	4
SIT2008	Further Mathematical Statistics	SIT2001	4
SIT2009	Regression Analysis	SIT1001	4
SIT2010	Stochastic Processes	SIT2001	3
SIT3003	Computer Intensive Methods in Statistics	SIT2001	4
SIT3004	Applied Stochastic Processes	SIT2010	4
SIT3005	Time Series and Forecasting Methods	SIT2001	4
SIT3015	Introduction to Multivariate Analysis	SIT2001	3
SIT3016	Generalized Linear Models	SIT2001 and SIT2009	4
SIT3017	Statistical Learning and Data Mining	SIT2007	3
SIT3018	Non-Parametric Statistics	SIT1001	4
SIT3019	Introduction to Bayesian Statistics	SIT2001	4
SIT3020	Python for Data Science	SIT3017	4
SIT3022	Probability Theory	SIM2001 and SIT2008	4
Students who wish to take SIQ3007 are advised to have passed at least 110 credits of the listed courses in the program.			
<b>(II) ELECTIVE UNIVERSITY COURSES (8 CREDITS)</b>			
<b>Student Holistic Empowerment [SHE]</b>			
Choose one course from each cluster			
<b>Cluster</b>	<b>Cluster Title</b>	<b>Credits</b>	
Cluster 1	Thinking Matters: Mind and Intellect	2	
Cluster 2	Emotional, Physical and Spiritual Intelligence: Heart, Body and Soul	2	
Cluster 3	Technology/Artificial Intelligence and Data Analytics: I-Techie	2	
Cluster 4	Global Issues and Community Sustainability: Making The World A Better Place	2	

**LIST OF COURSES ACCORDING TO SEMESTER  
(PLANNING OF COURSES)  
BACHELOR OF ACTUARIAL SCIENCE**

COMPONENT	YEAR 1				TOTAL CREDITS
	SEMESTER 1		SEMESTER 2		
	COURSE	CREDIT	COURSE	CREDIT	
University Courses	GLT <sup>xxxx</sup>	2	GLT <sup>xxxx</sup>	2	12
	GIG1012 / GLT1017*	2	GIG1013	2	
	GIG1003	2	GKA/GKI/GKK/ GKP/GKS/GKU	2	
Core Courses	SIM1001	4	SIQ1001	3	24
	SIM1002	4	SIM1003	4	
	SIX1016	3	SIT1001	4	
			SIX1015	2	
Elective Courses	Student Holistic Empowerment (SHE) Cluster 1	2			2
TOTAL CREDITS		19		19	38

\*only for international students

Component	Year 2				Total Credits
	Semester 1		Semester 2		
	Course	Credit	Course	Credit	
Core Courses	SIM2011	4	SIM2001	4	31
	SIQ2001	3	SIM2002	4	
	SIQ2003	4	SIM2007	2	
	SIT2001	4	SIQ2002	3	
	SIT2007	3			
Elective Courses	Student Holistic Empowerment (SHE) Cluster 2	2	Elective Course 1	4	9
			Elective Course 2	3	
TOTAL CREDITS		20		20	40

Component	Year 3				Total Credits
	Semester 1		Semester 2		
	Course	Credit	Course	Credit	
Core Courses	SIQ3001	4	SIQ3003	4	24
	SIQ3002	4	SIQ3004	4	
	SIQ3005	4	SIQ3006	4	
Elective Courses	Elective Course 3	4	Student Holistic Empowerment (SHE) Cluster 3	2	16
	Elective Course 4	4	Student Holistic Empowerment (SHE) Cluster 4	2	
			Elective Course 5	4	
Total Credits		20		20	40

Component	Year 4				Total Credits
	Semester 1		Semester 2		
	Course	Credit	Course	Credit	
Core Courses	SIQ3007	8			8
Elective Courses			Elective Course 6	4	19
			Elective Course 7	4	
			Elective Course 8	4	
			Elective Course 9	4	
			Elective Course 10	3	
Total Credits		8		19	27