

BACHELOR OF SCIENCE IN MATHEMATICS
SESSION 2019/2020
(125 CREDITS)

1. UNIVERSITY COURSES (20 CREDITS)

COURSE CODE	COURSE NAME	PRE-REQUISITE	CREDITS
GLTxxxx	Communication in English	-	6
GKN/GKR/GKV	Co-curriculum	-	2
GIG1001/ GLT1017	The Islamic and Asian Civilization (TITAS)/ Basic Malay Language (only for international students)	-	2
GIG1002/ GIG1006	Ethnic Relations/ Introduction to Malaysia (only for international students)	-	2
GIG1003	Basic Entrepreneurship Culture	-	2
GIG1004	Information Literacy	-	2
GIG1005	Social Engagement	-	2
GIA-GIXxxxx	External Faculty Elective Course	-	2

2. CORE COURSES (70 CREDITS)

(I) FACULTY CORE COURSES (8 CREDITS) [TF]

COURSE CODE	COURSE NAME	PRE-REQUISITE	CREDITS
SIX1001	Introduction to Science and Technology Studies	-	3
SIX1002	Ethics and Safety	-	2
SIX1004	Statistics	-	3

(II) PROGRAM CORE COURSES (62 CREDITS) [TP]

COURSE CODE	COURSE NAME	PRE-REQUISITE	CREDITS
LEVEL 1 (24 Credits)			
SIM1001	Basic Mathematics	-	4
SIM1002	Calculus I	-	4
SIM1003	Calculus II	SIM1002	4
SIN1001	Introduction to Computing	-	2
SIN1002	Introduction to Worksheet	-	2
SIN1003	Mathematical Methods I	SIM1002	4
SIT1001	Probability and Statistics I	SIM1002	4
LEVEL 2 (34 Credits)			
SIM2001	Advanced Calculus	SIM1003	4
SIM2002	Linear Algebra	SIM1001	4
SIM2003	Introduction to Combinatorics	SIM1001	4
SIM2004	Algebra I	SIM1001	4
SIM2005	Introduction to Analysis	SIM1003	4
SIM2006	Complex Variables	SIM1003	4
SIM2007	Appreciation of Mathematics	SIM1003	2
SIN2001	Mathematical Methods II	SIN1003	4
SIN2002	Structured Programming	SIM1002	4
LEVEL 3 (4 Credits)			
SIN3015	Mathematical Science Project	SIM2002	4

3. ELECTIVE COURSES (35 CREDITS)

(I) PROGRAM ELECTIVE COURSES (at least 28 CREDITS) [EP]

COURSE CODE	COURSE NAME	PRE-REQUISITE	CREDITS
SIM2008	Theory of Differential Equations	SIN1003 and SIM2002	4
SIM2009	Geometry	SIM1001	4
SIM3001	Graph Theory	SIM2003	4
SIM3002	Combinatorial Mathematics	SIM2003	4
SIM3003	Number Theory	SIM2002	4
SIM3004	Advanced Linear Algebra	SIM2002	4
SIM3005	Matrix Theory	SIM2002	4
SIM3006	Algebra II	SIM2004	4
SIM3007	Ring Theory	SIM2004	4
SIM3008	Group Theory	SIM2004	4
SIM3009	Differential Geometry	SIM2001	4
SIM3010	Topology	SIM2001	4
SIM3011	Complex Analysis	SIM2006	4
SIM3012	Real Analysis	SIM2005	4
SIM3013	Probabilistic Methods in Combinatorics	SIM2003 and SIT1001	4
SIN3014	Industrial Training	SIM2002	5

(II) FACULTY ELECTIVE COURSES (7 CREDITS) [EF]

* Courses Offered by Other Institute/Department within the Faculty of Science

* Refer to the Faculty Elective Courses lists other than from the Institute of Mathematical Sciences but within the Faculty of Science

Institute/Department	Course Code	Course Title	Credits
Institute of Biological Sciences	SIX1006	Malaysian Flora	3
	SIX1007	Malaysian Fauna	3
	SIX1008	Bio Computing	2
Department of Chemistry	SIX1009	Basic Chemistry	2
Department of Geology	SIX1010	Earth's Ecosystem	2
Department of Physics	SIX1011	Contemporary Physics	2
Department of Science and Technology Studies	SIX1012	Logical Thinking in Science	3

The exact number of elective courses offered in each year may differ. Core courses in Bachelor of Science in Applied Mathematics or Bachelor of Science in Statistics may also be taken as elective courses of department for this program. Only SIQ2003 in Bachelor of Actuarial Science may be taken as an elective course of department for this program. Please refer to the respective programs.

Attention:

1. Students who wish to specialize in Bachelor of Science in Mathematics must take at least 24 credits from courses with codes SIM3***/SIN3***/SIT3***/SIQ3***(except SIN3014) of which at least 12 credits must be from SIM3***.
2. Students who wish to take SIN3014 or SIN3015 must pass at least 80 credits of the listed mathematics courses.