

6. Degree Plan

The BS degree plan for ASFM program showing the sequence of courses suggested in each semester is presented in this section. In addition to the ASFM degree plan and for completeness, we also show the sequence of courses in the preparatory year program.

ACTUARIAL SCIENCE AND FINANCIAL MATHEMATICS (ASFM) CURRICULUM

COURSE	TITLE	LT	LB	CR	COURSE	TITLE	LT	LB	CR
Prep Year (Preparatory)									
ENGL 001	Preparatory English I	15	5	8	ENGL 002	Preparatory English II	15	5	8
MATH 001	Preparatory Math I	3	1	4	MATH 002	Preparatory Math II	3	1	4
PYP 001	Preparatory Physical Sciences	2	0	2	PYP 002	Preparatory Computer Sciences	0	2	1
PYP 003	University Study Skills	0	2	1	ME 003	Preparatory Engineering Technology	0	2	1
PE 001	Preparatory Physical Education I	0	2	1	PE 002	Prep. Physical Educ. II	0	2	1
		20	10	16			18	12	15
Total credit hours required in Preparatory Program: 31									
First Year (Freshman)									
ENGL 101	English Composition I	3	0	3	IAS 111	Belief and its Conseq.	2	0	2
PE 101	Physical Education I	0	2	1	PE 102	Physical Education II	0	2	1
MATH 101	Calculus I	4	0	4	ENGL 102	English Composition II	3	0	3
ECON 101	Prin of Economics I (MICRO) ^{VE}	3	0	3	MATH 102	Calculus II	4	0	4
IAS 101	Practical Grammar	2	0	2	ACCT 201	Prin of Accounting I	2	2	3
ICS 102/103	Intro to Computing/Computer Programming in C	2	3	3	ECON 202	Prin of Economics II (MACRO) ^{VE}	3	0	3
					GS xxx	General Studies I	3	0	3
		14	5	16			17	4	19
Second Year (Sophomore)									
IAS 201	Objective Writing	2	0	2	IAS 212	Professional Ethics	2	0	2
ASFM 201	Financial Mathematics ^{FM}	3	0	3	MATH 202	Elements of Differential Equations	3	0	3
MATH 201	Calculus III	3	0	3	FIN 250	Financial Management ^{VF}	3	0	3
ACCT 202	Prin of Accounting II (investment acct)	2	2	3	MATH 280	Intro to Linear Algebra	3	0	3
STAT 213	Statistical Methods for Actuaries ^{VS}	2	2	3	ASFM 288	Actuarial Lab I	0	1	1
ENGL 214	Technical Report Writing	3	0	3	STAT 301	Intro to Probability Theory ^P	3	0	3
		15	4	17			14	1	15
Third Year (Junior)									
IAS 311	Islamic Shariah	2	0	2	MATH 322	Quantitative Meth for Actuaries	3	0	3
STAT 302	Statistical Inference	3	0	3	FIN 430	Risk Mgt, Conventional and Islamic Insurance	3	0	3
STAT 310	Regression Analysis ^{VS}	3	0	3	STAT 460	Time Series ^{VS}	3	0	3
FIN 320	Investments ^{VF}	3	0	3	FIN 470	Financial Engineering	3	0	3
ASFM 381	Actuarial Contingencies I ^C	3	0	3	ASFM 482	Actuarial Contingencies II ^C	3	0	3
ASFM 388	Actuarial Lab II	0	1	1	ASFM 483	Actuarial Risk Theory and Credibility	3	0	3
STAT 416	Stochastic Process for Actuaries ^M	3	0	3					
		17	1	18			18	0	18
					ASFM 350	Third year Summer Cooperative work	0	0	0
Fourth Year (Senior)									
ASFM 351	Cooperative work (continued)	0	0	9	xxx xxx	Free Elective I	3	0	3
ASFM 352	Cooperative work (continued)	0	0	0	ASFM xxx	ASFM Elective I	3	0	3
					ASFM xxx	ASFM Elective II	3	0	3

GS	xxx	General Studies II	3	0	3
IAS	418	Contemporary Financial Transactions in Islam	2	0	2

0 0 9 14 0 14

Total credit hours required in Degree Program: 126

Total credit hours required in General Education Hours: 61

Total credit hours required in Major Requirement Hours: 47

Cooperative Work Hours: 9

Total credit hours required in Major Electives: 6

Total credit hours required in Other Electives: 3

VF	courses covering Finance topics for the SOA Validation by Educational Experience (VEE)
VE	courses covering Economics topics for the SOA Validation by Educational Experience (VEE)
VS	courses covering Applied Statistical Methods topics for the SOA Validation by Educational Experience (VEE)
P	courses covering topics for the SOA professional exam P (Probability)
F	courses covering topics for the SOA professional exam FM (Financial Mathematics)
M	courses covering topics for the SOA professional exam M (Actuarial Models)
C	courses covering topics for the SOA professional exam C (Constructing & Validating Actuarial Models)

Blue colored font = Actuarial Related courses

Red colored font = Finance and Business Related courses

ASF = Actuarial Science and Financial Mathematics.



* Any 3 credit hour course listed under Major electives with approval of advisor

** Any 3 credit hour course including those listed under Major electives with approval of advisor