

Degree and Study Plan

College	Applied and Health Sciences
Department	Basic and Applied Sciences
Program	Mathematics
Degree Level	Bachelor of Science
Total Credit Hours	120
Cohort	2024 and above

Summary of Credits	
University Requirements (UR)	12
University Electives (UE)	6
College Requirements (CR)	12
Program Requirements (PR)	72
Program Electives (PE)	18
Total	120

For more information contact:

Dr. Jamal Salah

HoD: Dr. Rayya Al Balushi

Dean: Dr. Said Al Ghenaimi

Date:

Year One	Semester 1 (Fall)				
	Course Code	Course Title	Credits	Pre-Request/ Co-Request	Category
	ENGL101	English Communication Skills I	3		UR
	MATH101	Calculus I	3		PR
	MATH140	Discrete Mathematics	3		PR
	PHYS101	Physics I	3		CR
	PHYS181	Physics I Lab	1		CR
	OMNS101	Oman Society	3		UR
	Total Credits		16		
	Semester 2 (Spring)				
	Course Code	Course Title	Credits	Pre-Request/ Co-Request*	Category
		Program Elective 1	3		PE
	MATH102	Calculus II	3	MATH101	PR
	MATH242	Linear Algebra	3	MATH101	PR
	MAT211	Principles of Mathematics	3		PR
	PHYS102	Physics II	3	PHYS01	CR
	PHYS182	Physics II Lab	1	PHYS181	CR
	Total Credits		16		

Year Two	Semester 3 (Fall)				
	Course Code	Course Title	Credits	Pre-Request/ Co-Request	Category
	ARAB101	Arabic	3		UR
		University Elective 1	3		UE
	MATH251	Modern Euclidean Geometry	3	MATH211	PR
	MATH221	Ordinary Differential Equations I	3	MATH102	PR
		Program Elective 2	3		PE
	Total Credits		15		
	Semester 4 (Spring)				
	Course Code	Course Title	Credits	Pre-Request/ Co-Request	Category
		University Elective 2	3		UE
	BIOL101/ or CHEM101	Biology I/ or Chemistry I	3		CR
	BIOL181/ Or CHEM181	Biology I Lab/ or Chemistry I Lab	1		CR
		Program Elective 3	3		PE
	MATH212	Real Analysis	3	MATH211	PR
	MATH301	Multivariable Calculus	3	MATH102	PR
Total Credits		16			

Year	Semester 5 (Fall)
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	Course Code	Course Title	Credits	Pre-Request/ Co-Request	Category
	MATH361	Computational Mathematics	3	MATH242	PR
	MATH321	Partial Differential Equations I	3	MATH221	PR
	MATH341	Modern Algebra	3	MATH211	PR
		Program Elective 4	3		PE
	MATH312	Set Theory	3	MATH211	PR
	Total Credits		15		
	Semester 6 (Spring)				
	Course Code	Course Title	Credits	Pre-Request/ Co-Request	Category
	MATH342	Number Theory	3	MATH341	PR
		Program Elective 5	3		PE
	MATH313	Advanced Real Analysis	3	MATH212	PR
	MATH343	Advanced Linear Algebra	3	MATH242	PR
	MNGT313	Entrepreneurship	3		UR
	Total Credits		15		

Year Four	Semester 7 (Fall)				
	Course Code	Course Title	Credits	Pre-Request/ Co-Request	Category
	MATH411	Complex Analysis	3	MATH212	PR
	MATH422	Partial Differential Equation II	3	MATH321	PR
	MATH421	Ordinary Differential Equations II	3	MATH221	PR
		Program Elective 6	3		PE
	MATH461	Numerical Analysis	3	MATH321	PR
	Total Credits		15		
	Semester 8 (Spring)				
	Course Code	Course Title	Credits	Pre-Request/ Co-Request	Category
	MATH462	Operation Research	3	MATH242	PR
	MATH442	Mathematical Modeling	3	MATH321	PR
	MATH499	Project in Mathematics	6	After 72 CR	PR
	Total Credits		12		
	Summer				
	Course Code	Course Title	Credits	Pre-Request/ Co-Request	Category

Year Five	Semester 9 (Fall)				
	Course Code	Course Title	Credits	Pre-Request/ Co-Request	Category

	Total Credits		120		

List of Program Elective Courses:

A student must register in 3 courses with total of 9 credits hours following the program study plan:			
Course Code	Course Title	Credits	Pre-Request/ Co-Request
MATH131	Principles of Statistics	3	
MATH332	Advanced Statistics	3	MATH131
ENGL102	English Communication skills II	3	ENGL101
MATH371	Special Functions	3	MATH221
MATH344	Advanced Modern Algebra	3	MATH341
MATH314	Topology	3	MATH212
MATH412	Advanced Complex Analysis	3	MATH411
MATH441	Analytic Number Theory	3	MATH411
MATH414	Fuzzy Sets and its Applications	3	MATH312
MATH472	Special Topics	3	
MATH352	Graph Theory	3	MATH251
MATH451	Functional Analysis	3	MATH242
MATH132	Probability Theory I	3	
INTE105	Introduction to Computer Programing	3	
INTE130	Object Oriented Programing	3	INTE105

University Electives:

Choose 2 courses from this list:			
Course Code	Course Title	Credits	Pre-Request/ Co-Request
ARAB102	الأدب العربي	3	
ISLM101	Islamic Civilizations	3	
PHIL101	Introduction to Logic (Philosophy)	3	
SOCI101	Sociology	3	
PSYC100	مدخل إلى علم النفس	3	
FINA202A	التمويل الشخصي	3	
ECON101	الاقتصاد الجزئي	3	
FAID101	First Aid	3	
PUHE211	Introduction to Public Health	3	
LAWC101	القانون في حياتنا	3	
LAWC102	التشريعات الوظيفية	3	

LAWC103	نظام الأسرة	3	
ECEN344	Renewable Energy	3	ECVEN221
ENEN581	Climate Change	3	CVEN361