

Bachelor's Program Plan of Science and Education
Math Specialization (Credit Hour System)
First Semester

Course Code and pre-requisites	Course Title	Credit Hours	Course Category	Course Type	
MAF101	General Chemistry	2	Specialized course	Compulsory course	
MAF102	Introduction to Statistics	2	Specialized course	Compulsory course	
MAF103	Dynamics1	2	Specialized course	Compulsory course	
MAF104	Statics1	2	Specialized course	Compulsory course	
MAF105	Analytical Geometry 1	2	Specialized course	Compulsory course	
MAF106	Properties of matter and temperature	2	Specialized course	Compulsory course	
MAF107E	Introduction to algebra	2	Specialized course	Elective course	Student chooses one of them
MAF108E	Introduction to Computer Science	2	Specialized course	Elective course	
EDF108	Active learning strategies	2	Educational course	Compulsory course	
EDF109	Teaching profession and teacher's role	2	Educational course	Compulsory course	
GR131	History and civilization of Egypt	3	Cultural course	Elective course	Student chooses one of them
EL111	Communication skills in English 1	3	Cultural course	Elective course	
ARBN	Arabic language	0	Cultural noncredit course	Compulsory course	
Total number of Credit Hours for This Term is 21Credit Hours					

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Second Semester

Course Code and pre-requisite	Course Title	Credit Hours	Course Category	Course Type	
MAS109	Algebra	2	Specialized course	Compulsory course	
MAS110	Calculus1	2	Specialized course	Compulsory course	
MAS111 Prerequisite MAF103	Dynamics2	2	Specialized course	Compulsory course	
MAS112 Prerequisite MAF104	Statics 2	2	Specialized course	Compulsory course	
MAS113	Introduction to Number Theory and Logic	2	Specialized course	Compulsory course	
MAS114	Electricity, Magnetism and Alternating Current	2	Specialized course	Compulsory course	
MAS115E	Graph Theory	2	Specialized course	Elective course	Student chooses one of them
MAS116E	Space Mechanics and Astronomy	2	Specialized course	Elective course	
EDS117	Educational Leadership	1	Educational course	Compulsory course	
EDS118	Education Technology and Digitalization	2	Educational course	Compulsory course	
GR118	Life Skills and Coexistence	3	Cultural course	Elective course	Student chooses one of them
EL112 Prerequisite EL111	Communication Skills in English 2	3	Cultural course	Elective course	
FTS11	Field Training 1	1	Field Training	Compulsory course	
ENGN	English Language	0	Cultural noncredit course	Compulsory course	
Total number of Credit Hours for This Term is 21Credit Hours					

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Math Specialization (Credit Hour System)

Third Semester

Course Code and pre-requisite	Course Title	Credit Hours	Course Category	Course Type	
MAF217	Philosophy and History of Mathematics	2	Specialized course	Compulsory course	
MAF218	Group Theory	2	Specialized course	Compulsory course	
MAF219 Prerequisite MAS110	Calculus 2	2	Specialized course	Compulsory course	
MAF220	Real Analysis	2	Specialized course	Compulsory course	
MAF221 Prerequisite MAF105	Analytical Geometry 2	2	Specialized course	Compulsory course	
MAF222	Numerical Analysis	2	Specialized course	Compulsory course	
MAF223E	Multimedia Mechanics	2	Specialized course	Elective course	Student chooses one of them
MAF224E	Mathematical Analysis	2	Specialized course	Elective course	
EDF226	Developmental Psychology	2	Educational course	Compulsory course	
EDF227E	Educational and Administrative Theories	2	Educational course	Elective course	Student chooses one of them
EDF228E	Creativity and Talent Development	2	Educational course	Elective course	
EDS231E	Education for sustainable development	2	Educational course	Elective course	
EDF230	Micro-Teaching 1	1	Field Training	Compulsory course	
Total number of Credit Hours for This Term is 19 Credit Hours					

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Forth Semester

Course Code and pre-requisite	Course Title	Credit Hours	Course Category	Course Type	
MAS225	Topology	2	Specialized course	Compulsory course	
MAS226	Spherical Geometry	2	Specialized course	Compulsory course	
MAS227	Calculus Equations	2	Specialized course	Compulsory course	
MAS228	Physical Chemistry	2	Specialized course	Compulsory course	
MAS229 Prerequisite MAF219	Calculus3	2	Specialized course	Compulsory course	
MAS230	Analytical Dynamics	2	Specialized course	Compulsory course	
MAS231E	statistical Analysis	2	Specialized course	Elective course	Student chooses one of them
MAS232E	Inferential Statistics	2	Specialized course	Elective course	
EDS238	Learning Assessment	2	Educational course	Compulsory course	
EDS239E	Psychological and educational counseling	2	Educational course	Elective course	Student chooses one of them
EDS240E	Contemporary Approaches in Teaching Specialization	2	Educational course	Elective course	
EDS243E	International organizations and education development	2	Educational course	Elective course	
EDS242	Micro-Teaching 2	1	Field Training	Compulsory course	
TECN	Communication and Information Technology in Teaching and Research	0	Cultural noncredit course	Compulsory course	
Total number of Credit Hours for This Term is 19 Credit Hours					

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Math Specialization (Credit Hour System)

Fifth Semester

Course Code and pre-requisite	Course Title	Credit Hours	Course Category	Course Type	
MAF333	Fluids	2	Specialized course	Compulsory course	
MAF334	Software for Mathematical and Statistical Applications	2	Specialized course	Compulsory course	
MAF335	Ring and Field Theories	2	Specialized course	Compulsory course	
MAF336	Linear Algebra	2	Specialized course	Compulsory course	
MAF337	Functional Analysis	2	Specialized course	Compulsory course	
MAF338	Quantum Mechanics	2	Specialized course	Compulsory course	
MAF339E	Probability and Statistics	3	Specialized course	Elective course	Student chooses one of them
MAF340E	Electromagnetic Theory	3	Specialized course	Elective course	
EDF350	Contemporary Trends in Psychology	1	Educational course	Compulsory course	
EDF351	Special Needs Inclusion	1	Educational course	Compulsory course	
EDF352E	Alternative Assessment and Its Applications	2	Educational course	Elective course	Student chooses one of them
EDF353E	Education and Entrepreneurship	2	Educational course	Elective course	
EDF354E	Electronic Education	2	Educational course	Elective course	
FTF32	Field Training 2	1	Field Training	Compulsory course	
Total number of Credit Hours for This Term is 20 Credit Hours					

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Sixth Semester

Course Code and pre-requisite	Course Title	Credit Hours	Course Category	Course Type	
MAS341	Complex Analysis	2	Specialized course	Compulsory course	
MAS342	Operation Research	2	Specialized course	Compulsory course	
MAS343	Biomathematics	2	Specialized course	Compulsory course	
MAS344	English Readings in the Specialty	2	Specialized course	Compulsory course	
MAS345	Integral Equations	2	Specialized course	Compulsory course	
MAS346E	Elasticity	3	Specialized course	Elective course	Student chooses one of them
MAS347E	Calculus Geometry	3	Specialized course	Elective course	
MAS348E	Theory of Relativity	3	Specialized course	Elective course	
EDS362	International and Comparative Education	1	Educational course	Compulsory course	
EDS363	School curriculum	1	Educational course	Compulsory course	
EDS364E	Mentorship and Reflection on Professional Practices	2	Educational course	Elective course	Student chooses one of them
EDS365E	Subject and Interdisciplinary-Based Learning	2	Educational course	Elective course	
EDS366E	Multiple Intelligences	2	Educational course	Elective course	
FTS33	Field Training 3	1	Field Training	Compulsory course	
Total number of Credit Hours for This Term is 18 Credit Hours					

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Seventh Semester

Course Code and pre-requisite	Course Title	Credit Hours	Course Category	Course Type
ED40F	Graduation Project (1)	1	Educational course	Compulsory course
ED41F	Action Research (1)	1	Educational course	Compulsory course
FTF44	Field Training 4	5	Field Training	Compulsory course
Total number of Credit Hours for This Term is 7 Credit Hours				

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Eighth Semester

Course Code and pre-requisite	Course Title	Credit Hours	Course Category	Course Type
ED40S	Graduation Project (2)	2	Educational course	Compulsory course
ED41S	Action Research (2)	1	Educational course	Compulsory course
FTS45	Field Training 5	5	Field Training	Compulsory course
Total number of Credit Hours for This Term is 8 Credit Hours				