

**The Studying Plan
for preparing programs of mathematics and
science teachers in English for Basic
Education "the first year "and General
Education "**

First: General Education

Preparatory and Secondary Teacher

The Pedagogical and Cultural Courses "Two Semester's System" First Semester

First Year								
Course Number	Subjects name	Theoretical Hours	Practical Hours	Total	Class works	Oral	Written	Total
ED111	Education and Day Issues	2	-	2	30	-	70	100
	Optional Cultural Courses	2	-	2	30	-	70	100
A111	Arabic Language	2	-	2	30	-	70	100
		6		6				

Second Year

Course Number	Subject Name	Theoretical Hours	Practical Hours	Total	Class works	Oral	Written	Total
CURR211	micro-Teaching(1)	-	2	2	30	20	-	50
ED211	Classroom and School administration	1+1	--	2	30	-	70	100
PSY211	Psychology of Education	2	1	3	35	15	75	125
		4	3	7				

Third Year

Course Number	Subject Number	Theoretical Hours	Practical Hours	Total	Class works	Oral	Written	Total
Curr311	Methodology1	2	1	3	35	15	75	125
Curr312	Educational Technology Specialty2	1	2	5	15	15	70	150
Curr313	- Computer in specialty	1	1		25	25	-	

Fourth Year

Course Number	Subject Number	Theoretical Hours	Practical Hours	Total	Class works	Oral	Written	Total
Curr411	Methodology	2	1	3	35	15	75	125
Psy411	Mental health and psychological counseling	2		2	30	-	70	100
Curr412	Curriculum	2		2	30	-	70	100
		6	1	7				

Student chooses one of the following scheduled courses:

(Curr111) Scientific Culture

(Curr112 -Environment Education

-(Phil) philosophical and scientific thinking

(Curr113) -Health Education

**The pedagogical and cultural subjects "Two semester's system"
Second semester**

First Year								
Course Number	Subjects name	Theoretical Hours	Practical Hours	Total	Class works	Oral	Written	Total
ED121	The teacher and the teaching profession	2		2	30	-	70	100
ENG121	English language (all divisions except E) Second foreign language for E	2	2	4	45	20	85	150
PSY121	growth psychology	2	-	2	30	-	70	100
		6	2	8				

Second Year

Course Number	Subjects name	Theoretical Hours	Practical Hours	Total	Class works	Oral	Written	Total
Curr221	Micro-Teaching2		2	2	30	20	-	50
ED211	Optional pedagogical course	2	-	2	30	-	70	100
CURR222	Educational Technology	2	2	4	45	15	90	150
		4	4	8				

Third Year

Course Number	Subject Number	Theoretical Hours	Practical Hours	Total	Classworks	Oral	Written	Total
ED321	pedagogical Thought and its applications - Adult education - its origins and methods	2	-	4	30	-	70	200
ED322		2	-		30	-	70	
PSY321	The psychology of special needs - The methodology of special needs	2	-	4	30	-	70	200
CURR321		2	-		30	-	70	
		8	-	8				

Fourth Year

Course Number	Subject Number	Theoretical Hours	Practical Hours	Total	Class works	Oral	Written	Total
PSY421	Individual differences and psychometrics	2	1	3	35	15	75	125
ComEd411	The education system in Egypt and contemporary trends	2	-	2	30	-	70	100
		4	1	5				

Student chooses one of the following scheduled courses:

School and community (Ed223)

International Education (Ed222)

Educational Supervision (Ed221)

Social Psychology (Psy222)

The psychology of talent and excellence (Psy223)

Personal psychology (224)

**Mathematics Section
First Year**

First Term

Course Number	Subject name	Hours Number			Subject degree(Last Year)			
		Theoretical	Practical	Total	Class works	Oral	Written	Total
110M	Introduction to Computer	2	1	3	35		90	125
111M	<u>Advanced Mathematics</u>	2	-	-	30		70	300
112M	A- Fundamentals of Mathematics B-Advanced Algebra	2	2	7	70		140	
113M	Calculation1	3	2	5	60		140	200
114M	The principles of mechanics	4	2	6	70		180	250
111Ph 112Ph	Physics 1(A-. properties of the material B)- Electricity and magnetism	2 2	1 1	6	20 20	20 20	85 85	250
	Pedagogical And Cultural	6	-	6				
				33				

Second Term

Course Number	Subject name	Hours Number			Subject degree(Last Year)			
		Theoretical	Practical	Total	Class works	Oral	Written	Total
121 M	Philosophy and the history of mathematics	2	1	3	35		90	125
122M	Analytic geometry in the level	2	2	4	45		105	150
123M	Calculation2	3	2	5	60		140	200
124M	Mechanics	4	2	6	70		180	250
121Ph 122Ph	Physics 2 A-Heat B - geometric optics	2 2	1 1	6	20 20	20 20	85 85	250
	Pedagogical And Cultural	6	2	8				
				38				

Mathematics Section

Second Year

First Term								
		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
216M	Linear Algebra	2	1	3	35		90	125
213M	Calculation 3- - Math	2	2	7	45		105	275
219M	Applications	2	1		35		90	
214M	Statics	4	2	6	70		180	250
215M	Introduction to Computer Programming	2	1	3	35		90	125
211Ph	Physics 3 A. Thermodynamic	2	2	7	20	25	105	275
216Ph	B. Modern Physics	2	1		35		90	
	Pedagogical and Cultural	4	3	7				
				33				

Second Term								
		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
222M	Space Engineering	2	2	4	45		105	150
223M	Differential Equations	2	2	4	45		105	150
224M	-Dynamics -	4	2		70		180	
225M	- Probability theory	3	1	10	50		125	425
223Ph	Physics 4 --Physical Optics	2	1	6	15	20	90	250
224Ph	- Alternating Current	2	1		15	20	90	
	Pedagogical and Cultural	4	4	8				
				32				

**Mathematics Section
Third Year**

First Term								
		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretic al	Prac tical	Total	Class works	Or al	Writt en	Total
312M	Emerald theory	3	-	3	45	-	105	150
311M	General Topology	2	1	3	35	-	90	125
313M	Real Analysis	3	-	3	45	-	105	150
316M	Applied Mathematics							
	-Rigid body dynamics	3		6	45	-	105	300
316M	Electric-	3			45	-	105	
318M	Optional courses (student choose one course)	3	-	3	45	-	105	150
	- Engineering postulates							
319M	- Chaos Theory							
	Pedagogical and cultural	3	5-	8		-		
	Field Training1	Full Day			25	25		50
				26				

Second Term								
		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoret ical	Practica l	Total	Class works	Oral	Written	Total
328M	Numerical Analysis	3	-	3	45	-	105	150
323M	Special functions and Partial Differential Equations	3	-	3	45	-	105	150
325M	Statistical analysis	3	-	3	45	-	105	150
326M	Applied Mathematics							
324M	-Analytical dynamics	3	-	6	45	-	105	300
	-Multimedia Mechanics	3	-		45		105	
321M	Optional Courses(choose Ne)	3	-	3	45	-	105	150
322M	-Engineering fractures							
	-Astronomy and Space Mechanics							
	Pedagogical and Cultural	8	-	8				
	Field Training	Full Day			25	25		50
				26				

Mathematics Section

Fourth Year

First Term

		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
412M	Rings and fields	3	-	3	45	-	105	150
413M	Functional Analysis	3	-	3	45	-	105	150
415M	Operations Research	3	-	3	45	-	105	150
414M	Applied Mathematics	3	-	6	45		105	300
416M	-The relativity theory -Fluid Dynamics1	3	-		45		105	
418M	Optional Courses(choose oNe)	3	-	3	45		105	150
419M	- Educational Technology -Advanced statistical methods							
	Pedagogical and cultural	6	1	7				
	Field Training1	Full Day			25	25		50
				25				

Second Term

		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
423M	Complex Analysis	3	-	3	45	-	105	150
425M	Software packages in mathematical applications	2	1	3	35	-	90	125
426M	Applied Mathematics	3	-	6	45	--	105	300
424M	Fluid Dynamics2- -Quantum mechanics				3	-	45	
422M	Differential Engineering	3	-	3	45	-	105	150
428M	Optional Courses(choose oNe)	3	-	3	45	-	105	150
429M	-Vital Mathematics -Statistical mechanics							
	Pedagogical And Cultural	4	1	5				
	Field Training 2	Full Day			25	25		50
				23				

**Chemistry
First Year**

First Term								
Course Number	Subject name	Hours Number			Subject degree(Last Year)			
		Theoretical	Practical	Total	Class works	Oral	Written	Total
118 MS	Mathematics 1	2	-	2	30		70	100
111Ph	General Physics1	3	1	7	50	25	100	300
112Ph	-Material properties -electricity and magnetism	2	1		35	15	75	
11B 112B	General Biological sciences1	4	4	8	45	45	210	300
111Ch	General Chemistry1	3	2+1	6	35	35	155	225
	Pedagogical and cultural	6	-	6				
				29				

Second Term								
Course Number	Subject name	Hours Number			Subject degree(Last Year)			
		Theoretical	Practical	Total	Class works	Oral	Written	Total
128MS	Mathematics 2	2	1	3	35		90	125
121ph 122ph	General Physics 2 -Geometric optics Heat-	2	1	6	20	20	85	250
		2	1		20	20	85	
112Z 122B	General Biological sciences2	3	4	7	35	35	180	250
122Ch	General Chemistry2	3	1+2	6	35	35	155	225
123G	Geology	1	1	2	20		55	75
	Pedagogical and Cultural	6	2	8				
				32				

**Chemistry
Second Year**

First Term								
		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
216MS 217MS 218MS	MATHEMATICS 3	2	1	10	35		90	425
	LinearAlgebra-	2	1		35	90		
	-Probabilities and statistics	3	1		25	150		
Curr211	Ecology1	2	-	2	30		70	100
231Ch	Physical Chemistry1	2	2	4	20	25	105	150
211Ch	Analytical Chemistry1	2	3	5	25	25	125	175
211Ch	Organic Chemistry1	3	3+1	7	40	40	170	250
	Pedagogical and Cultural	4	3	7				
				35				

Second Term								
		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
226MS	Mathematics 4	2	1	3	35		90	125
222Ph 214Ph	General Physics 3	2	1	6	20	20	85	250
	-Modern Physics Biophysics-	2	1		20	20	85	
232Ch	Physical Chemistry II	3	1	4	25	25	125	175
222Ch	Inorganic Chemistry I	3	-	3	45	-	105	150
223Ch	Organic Chemistry II	3	3+1	7	40	40	170	250
	Pedagogical and Cultural	4	4	8				
				31				

**Chemistry
Third Year**

First Term								
Course Number	Subject name	Hours Number			Subject degree(Last Year)			
		Theoretical	Practical	Total	Classworks	Oral	Written	Total
331Ch	Physics Chemistry III	3	2	5	30	30	140	200
301Ch	Environmental Chemistry	2	2	4	20	25	105	150
321Ch	Organic Chemistry III	3	1	4	25	25	125	175
Curr311	Ecology(2)	2	-	2	30		70	100
318MS	Mathematics 5 Differential Equations	2	2	4	45	-	105	150
	Pedagogical And Cultural	3	5	8				
	Field Training	Full	Day		25	25		50
				27				

Second Term								
Course Number	Subject name	Hours Number			Subject degree(Last Year)			
		Theoretical	Practical	Total	Class works	Oral	Written	Total
332Ch	Physics Chemistry IV	3	3+1	7	35	35	180	250
312Ch	Analytical Chemistry II	3	3	6	35	30	160	225
322Ch	Organic Chemistry IV	4	4	8	40	50	210	300
328MS	Mathematics 6 - Special Functional + Partial Equations - groups Theory	3	-	6	45	-	150	275
329MS		2	1		35		90	
	Pedagogical and cultural	8	-	8				
	Field Training 2	Full	Day		25	25		50
				35				

**Chemistry
Fourth Year**

First Term								
Course Number	Subject name	Hours Number			Subject degree(Last Year)			
		Theoretic al	Practic al	Tota l	Class works	Ora l	Writte n	Tota l
433Ch	-Physics Chemistry V Fundamentals of materials science	3	2	8	30	30	140	325
		2	1		20	20	85	
411Ch	Inorganic Chemistry II	2	—	2	30		70	100
412Ch	Organic Chemistry V	3	4	8	40	40	170	300
423Ch	Organic Chemistry VI	1	—	8	15	—	35	300
414Ch	electric circuits	2	—	2	15	15	70	100
Curr411	Integrated Science	2	—	2	15	15	70	100
	Pedagogical and Cultural	6	1	7				
	Field Training(1)	Full	Day		25	25		50
				29				

Second Term								
Course Number	Subject name	Hours Number			Subject degree(Last Year)			
		Theoretic al	Practical	Total	Class works	Oral	Written	Total
431Ch	Physics Chemistry VI	3	2	5	30	30	140	200
432Ch	Physics Chemistry VII	2	4	6	30	30	140	200
412Ch	Inorganic Chemistry III Inorganic chemistry IV	2	4	8	30	30	140	300
		2	—		30	—	70	
422Ch	Organic Chemistry VII	3	3	8	30	30	165	325
424Ch	- Organic Chemistry VIII	2	—		30		70	
	Pedagogical and Cultural	4	1	5				
	Field Training(2)	Full	Day		25	25		50
				32				

**Physics
First year**

First Term								
		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
111Ph	General Physics(1) Matter	2	1	6	20	20	85	250
112Ph	Properties Electricity and Magnetism	2	1					
118MS	Mathematics 1	2	_	2	30	_	70	100
111B 121B	General biological sciences(1)	4	4	8	45	45	210	300
111Ch	General Chemistry (1)	3	2+1	6	35	35	155	225
	Pedagogical and cultural	6	_	6				
				28				

Second Term								
		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
121 Ph	General Physics (2) - Heat	2	1	6	20	20	85	250
122 Ph	- Geometric Optics	2	1					
128MS	Mathematics (2) Calculation (1)	2	1	3	35	_	90	125
121Ch	General Chemistry 2	3	1+2	6	35	35	155	255
112 Z 122 B	General biological sciences(2)	3	4	7	35	35	180	250
123 G	Geology	2	_	2	30		70	100
	Pedagogical and Cultural	6	2	8				
				32				

**Physics
Second Year**

First Term

		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
211 Ph	Thermodynamics	2	2			25	105	300
212 Ph	-Vibrations and waves	2	2	8	20	25	105	
213 Ph	Astronomical and meteorological Physics	2	-	2	30		70	100
Curr211	Ecology 1	2	-	2	30		70	100
211 Ch	Chemistry 1	2	2	4	20	25	105	150
216MS	Mathematics3 - linear Algebra	2	1		35		90	375
217MS	- Statistics and probabilities	2	1		35		90	
218MS	- Calculation2	2	1	9	35		90	
	Pedagogical and cultural	4	3	7				
				32				

Second Term

		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
221 Ph	Alternating Current	2	1	6	20	20	85	250
222Ph	- Biophysics	2	1		20	20	85	
223Ph	Physical Optics	2	2	4	20	25	105	150
221Ch	Chemistry 2	2	2	4	20	25	105	150
226MS	Mathematics 4 - Differential Equations	2	1		35		90	375
228MS	- Applied Mathematics 1	2	1	9	35		90	
229MS	- Applied Mathematics 2	2	1		35		90	
	Pedagogical and Cultural	4	4	8				
				31				

Physics Third Year

First Term								
		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoreti cal	Practical	Total	Class works	Oral	Written	Total
311Ph	Atomic and spectra physics	2	3	10	25	25	125	350
312Ph	Electronic optics	2	3		25	25	125	
313Ph	Quantum mechanics1	2	-	5	30	-	70	225
314Ph	- Relativity Theory	2	1		35	-	90	
315Ph	Statistical Physics	2	1	3	35		90	125
318Ms	Mathematics 5 Differential Equations	2	2	4	45		105	150
Curr311	Ecology 2	2	-	2	30		70	100
	Cultural pedagogy	3	5	8				
	Field Training1	Full	Day		25	25		50
				32				

Second Term								
		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoreti cal	Practical	Total	Class works	Oral	Written	Total
Ph321	Nuclear Physics1	2	2	8	20	25	105	300
	Solid Physics1				20	25	105	
Ph322	Quantum mechanics2	2	1	6	35		90	250
323Ph	Mathematical physics	2	1		35		90	
322Ph	The use of computers in physics	2	2	4	20	25	105	150
325Ph	Mathematics 6 Special Functional + Partial Equations	3						
328MS	Groups Theory				45		105	275
329Ms		2	1	6	35		90	
	Cultural and pedagogical	8	-	8				
	Field Training 2	Full	Day		25	25		50
				32				

**Physics
Fourth Year**

First Term								
		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
411Ph	Nuclear Phsics2 Solid Physics 2	2	2	8	20	25	105	300
412Ph		2	2		20	25	105	
413Ph	Laser Physics	2	2	8	20	25	105	300
414Ph	Electronic circuits	2	2		20	25	105	
415Ph	Plasma Physics	2	1	6	35		90	250
416Ph	electrical dynamics	2	1		35		90	
Curr411	Integrated Sciences	2	-	2	30		70	100
	Cultural And Pedagogical	6	1	7				
	Field Training 1	Full	Day		25	25		50
				31				

Second Term								
		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
421Ph	Radiological physics	2	2	8	20	25	105	300
422Ph	New and renewable energies	2	2		20	25	105	
423Ph	Material Physics	2	2	8	20	25	105	300
424Ph	Logical and digital circuits	2	2		20	25	105	
425Ph	magnetic resonance	2	1	5	35		90	225
427Ph	History and Philosophy of Science	1	-		30		70	
426Ph	Essay and research	2	1	3	35	-	90	125
	Cultural And Pedagogy	4	1	5				
	Field Training 2	Full	Day		25	25		50
				29				

Basic Biological Section - Geology Branch

First Year

First Term

		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
B11	General Biology	2	2	8	20	25	105	300
B112	Biological diversity	2	2		20	25	105	
Ch111	General Chemistry1	3	3	6	35	35	155	225
Ph111	General Physics - Material Properties.	2	1	6	20	20	85	250
Ph112	Electricity and Magnetism		1		20	20	85	
Ms118	Mathematics 1	2		2	30		70	100
	Cultural And Pedagogical	6		6				
				28				

Second Term

		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
Z 121	The human body	2	2	7	20	25	105	250
B122	Morphology and anatomy of plant							
G123	General Geology	1	1	2	12	10	53	75
Ch122	General chemistry 2	3	3	6	35	35	155	225
Ph122	General Physics 2 Geometric Optics	2	1	6	20	20	85	250
Ph121	Heat							
Ms128	Mathematics 2	2	1	3	35		90	125
	Pedagogical and Cultural	6	2	8				
				32				

Basic Biological Section - Geology Branch

Second Year

First Term

		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
Z211	Invertebrates	3	2		30	30	140	350
Z212	Histology and Microscopic techniques			9	20	25	105	
B213	Microbiology	2	2		20	25	105	300
B214	Algae	2	2	8	20	25	105	
G215	Earth Materials	1	2	3	15	15	70	100
	Chemistry	2	2	4	20	25	105	150
Curr211	Ecology 1	2		2	30		70	100
	Cultural and pedagogical	4	3	7				
				33				

Second Term

		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Classworks	Oral	Written	Total
Z221	Chordates	2	2	4	20	25	105	150
Z222	Animal Physiology1	2	2	4	20	25	105	150
B223	Plant environment Economic Plant	3	4	7	35	40	175	250
B224	Plant Physiology1	2	2	4	20	25	105	150
B225	Mineralogy and economic resources	1	2	3	15	15	70	100
	Cultural and Pedagogical	4	4	8				
				30				

Basic Biological Section - Geology Branch
Third Year

First Term								
		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
311Z	Cytology Molecular Biology	2	2	8	20	25	105	300
312Z	Embryology	2	2		20	25	105	
313B	Archijohnaat	1	2		15	15	70	
314B	Virus + bacteria	3	2	8	30	30	140	300
315G	Strata Science and Earth History	1	2	3	15	15	70	100
311Ch	Biochemistry	2	2	4	20	25	105	150
311Curr	Ecology 2	2		2	30		70	100
	Pedagogical and Cultural	3	5	8				
	Field Training 1	Full	Day		25	25		50
				33				

Second Term								
		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
321 Z	Animal Physiology 2	2	2	4	20	25	105	150
322 Z	Parasitology and immunology	2	2	4	20	25	105	150
323B	Classification of plant + advanced Anatomy plant	2	4	6	30	30	140	200
325 G	Sedimentary rocks + synthetic geology	3	2	5	35	40	175	250
324B	Environmental Microbiology	2		2	30		70	100
326B	Student choose oNe Applied Microbiology	2	2	4	20	25	105	150
327B	Radio Biology							
327B	Optional Topics							
	Cultural and Pedagogical	8		8				
	Field Training 2	Full	Day		25	25		50
				33				

Basic Biological Section - Geology Branch
Fourth Year

First Term								
		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
411Z	Comparative anatomy of vertebrates Organic evolution	3	2	5	30	30	140	200
412Z	Animal environment + animal behavior	2	2	4	20	25	105	150
413B	Plant Physiology 2	2	2	4	20	25	105	150
414B	Mycology	2	2	4	20	25	105	150
415G	Environmental geology + Astronomy	4		4	60		140	200
	Cultural and Pedagogical	6	1	7				
	Field Training 1	Full	Day		25	25		50
				28				

Second Term								
		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretic al	Practic al	Tota l	Class works	Ora l	Writte n	Tot al
421Z	Entomology	2	2		20	25		
422Z	Aquariums + economic animal	2	2	8	20	25	105	300
	Heredit y Egyptian flora	3	3	6	35	35	155	225
423 B	Biotechnology	2	2	7	20	25	105	
425G	Geophysics	2	1		15	20	90	275
	Student Choose oNe Applied insects The history of biology Optional topics	2		2	30		70	100
	Pedagogical And Cultural	4	1	5				
	Field Training2	Full	Day		25	25		50
				28				

Basic Geological Section - Biological branch
First Year

First Term								
		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
111B	General biology	2	2	8	20	25	105	
112B	Biological Diversity	2	2		20	25	105	300
111Ch	General Chemistry1	3	3	6	35	35	155	225
111Ph	General Physics1							
	Material prosperities	2	1		20	20	85	
	Electricity and Magnetism			6				250
112ph		2	1		20	20	85	
118Ms	Mathematics 1	2	-	2	30		70	100
	Cultural and pedagogical	6	-	6				
				28				
Second Term								
		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
121Z	Human Body Morphology	2	2		20	25	105	
122B	and anatomy of plant	1	2	7	15	15	70	250
123G	General Geology	1	1	2	12	10	53	75
122Ch	General Chemistry2	3	1+3	6	35	35	155	225
122Ph	General Physics2	2	1		20	20	85	
121Ph	Geometric Optics Heat	2	1	6	20	20	85	250
128Ms	Mathematics 2	2	1	3	35		90	125
	Cultural and pedagogical	6	2	8				
				32				

Basic geological Section - biological branch
Second Year

First Term								
		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
211G	Mineralogy and land resources	2	2	4	20	25	105	150
212G	The orbit of the sky and solar Group	2	1	3	15	20	90	125
312G	Invertebrates Animal	3	2	5	30	30	140	200
413B	Histology + animal environment	1+1	2+2	6	20	25	105	150
212B	Morphology and anatomy of plant Ecology 1	2	2	6	20	25	105	250
CURR211		2	-		15	15	70	
	Cultural and pedagogical	4	3	7				
				31				

Second Term								
		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
223G	Igneous and metamorphic rocks	2	2	4	20	25	105	150
327G	Sedimentary rocks	2	2	4	20	25	105	150
221Z	Chordates	3	2	5	30	30	140	200
311B	Animal Physiology	2	2	4	20	25	105	150
224B	Plant environment	2	2	4	20	25	105	150
	Cultural and pedagogical	4	4	8				
				29				

Basic Geological Section –Biological Branch

Third Year

First Term

		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
311G	Astronomy2 Galaxies and stars	1	2	3	15	15	70	100
312G	Invertebrates fossils	2	2	4	20	25	105	150
313G	micro-fossils Organic evolution	2	2	6	20	25	105	250
		2			15	15	70	
422B	Aquariums + algae	2+2	2	6	35	40	175	250
Curr311	Ecology2	2	-	2	30	--	70	100
	Pedagogical And Cultural	3	5	8				
	Training Field 1				25	25		50
				29				

Second Term

		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
326G	synthetic Geology	2	2	4	20	25	105	150
322B	Environmental Geology + meteorology	1+1	2+2	6	30	30	140	200
324G	Lithostratigraphy	2	2	4	20	25	105	150
323B	classifying flowering plants	1	2	3	15	15	70	100
	Pollen							
	Cultural and pedagogical	8		8				
	Field training 2	Full	Day		25	25		50
				28				

Second: Basic Education Basic Education Teacher

Student chooses one of the following scheduled courses:

- (Curr111) Scientific Culture**
-)(Curr112 -Environment Education**
- (Phil) philosophical and scientific thinking**
- (Curr113) -Health Education**

Student chooses one of the following scheduled courses:

- School and community (Ed223)**
- International Education (Ed222)**
- Educational Supervision (Ed221)**
- Social Psychology (Psy222)**
- The psychology of talent and excellence (Psy223)**
- Personal psychology (224)**

**Mathematics Division
Basic Education
First Year**

First Term

		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
Ed121	The teacher and educational profession	2		2	30		70	100
A111	Arabic language	2	2		45		105	
R111	Religion education(religion and life)			8				
		2	2		45		105	300
Eng121	English language	2	2	4	45		105	150
H424 Geog412	history and geography of modern Egypt	4		4	60		140	200
0111M	Mathematics Fundamentals of Mathematics	2	-		30		70	
0112M	Algebra			5				225
		2	1		35		90	
0110M	Introduction to computer	2	1	3	35	15	75	125
				24				

Second Term

		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
ED111	Education and the issues of the day	2	-	2	30		70	100
PS121	Psychology	2	-	2	30		70	100
0123M	Calculation 1	2	1	3	35		90	125
K122	Children's Literature	2	-	2	30		70	100
0122M	Analytic geometry in the level	1	1	2	20		55	75
M.ED121	Motor skills Musical skills	1	3	8	35	45	45	250
		1	3		35	45	45	
111Ch	General Chemistry	2	2	4	45	20	85	150
				22				

**Mathematics Division
Basic Education
Second Year**

First Term

		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
ED211	classroom and school Administration	2	-	2	30		70	100
ED211	Optional Education course	2	-	2	30		70	100
Curr211	Ecology 1	2	-	2	30		70	100
R211	Religion and Issues of the day	2	-	2	30		70	100
0214M	Applied mathematics 1	2	2	4	45		105	150
0212M	Linear Algebra Calculation 2	2	2	8	45		105	300
0213M		2	2		45	105		
Curr211	Micro- Teaching	-	2	2	20	30	-	50
				22				

Second Term

		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
Psy211	Psychology of learning	2	1	3	35	15	75	125
Curr222	Educational Technology 1	2	2	4	45	20	85	150
0226M	Mathematics History	2	-	2	30	-	70	100
Art+2 211	Manual and technical skills	1	3	4	35	35	55	125
Drama211	Child Drama and Theater	2	-	2	30	-	70	100
0222M	Analytic Geometry in Vacuum	2	2	4	45		105	150
0224M	Applied Mathematics 2	2	2	4	45		105	150
Curr221	Micro-Teaching 2	-	2	2	20	30		50
				25				

**Mathematics Division
Basic Education
Third Year**

First Term

		Hours Number			Subject degree(Last Year)			
Course Numbers	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
Curr211	Methodology 1	2	1	3	35	15	75	125
Curr312	Educational Technology (in specialty)	1	2	3	30	30	40	100
0314M	Applied linguistics 3	2	2	4	45	-	105	150
0315M	Introduction to Computer programming	2	1	3	35	15	75	125
0313M	Ordinary Differential equations	3	1	4	50	-	125	175
111Ph	Physics Material properties	2	1	6	35	15	75	250
112Ph	Electricity and Magnetism	2	1		35	15	75	
121Ch	General Chemistry 2	2	2	4	45	20	85	150
	Field training 1	Full	Day		25	25	-	50
				27				

Second Term

		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
Ed321	Educational Thought and its Educational Application	2	-	2	30		70	100
Psy321	The psychology of special categories	2	-	4	30		70	200
Curr321	The Methodology of special categories	2	-		30		70	
	Optional Cultural Course	2	-	2	30		70	100
Ed322	Adult Education ,Assets and Methods	2	-	2	30		70	100
0322M	Geometry Fundamentals	3	2	5	60		140	200
0324M	Applied mathematics 4	2	2	4	45	-	105	150
0325M	Probability Theory	2	1	3	35	-	90	125
	Field Training 2	Full	Day		25	25		50
				22				

**Mathematics Division
Basic Education
Fourth Year**

First Term

		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
Curr411	Methodology 2	2	1	3	35	15	75	125
Psy411	Mental health and psychological counseling	2	-	2	30		70	100
Curr412	Curriculum	2	-	2	30		70	100
0412M	Abstract algebra	2	2	4	45		105	150
0414M	Applied Mathematics 4	2	2	4	45		105	150
121Ph	Geometry optics	2	1	3	35		90	125
211Ch	General Chemistry 1	2	1	6	35	15	75	150
Curr411	Integrated sciences	2	1		35	15	75	
	Field Training 1	Full	Day		25	25		50
				24				

Second Term

		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
Psy421	individual differences and psychometrics	2	1	3	35		90	125
Ed421	Education Systems and Contemporary trends	2	-	2	30		70	100
0422M	General Topology	2	1	3	35		90	125
0428M	Software packages	2	1	3	35		90	125
0425M	Statistics Methods	2	1	3	35		90	125
211Ph	Thermodynamics	2	2	4	45	20	85	150
212Ph	Physics Vibrations and waves	2	2	6	45	20	85	250
222Ph	Modern Physics	2	-		30	-	70	
	Field Training 2	Full	Day		25	25		50
				24				

**Science Division
Basic Education
First Year**

First Term

		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
Ed121	Teacher and Educational profession	2		2	30		70	100
A111		2	2	8	45		105	300
R111		2	2		45		105	
Eng121	English language	2	3	4	45		105	150
H424 Geog412	Geography and History of Modern Egypt	4	-	4	60		140	200
Curr211	Ecology 1	2	-	2	30		70	100
0111MSA	Mathematics Mathematics Fundamentals	2	-	5	30		70	225
0112MSA	Algebra	2	1		35		90	
123G	Geological and biological sciences General Geology	1	1	2	20		55	75
				27				

Second Term

		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
Ed111	Education and day Issues	2	-	2	30	-	70	100
122Ph	General Physics.	2	1	6	15	20	90	250
121Ph	Geometry Optics Heat	2	1		15	20	90	
Psy121	Psychology	2	-	2	30		70	100
A211	Children Literature	2	-	2	30		70	100
0122MSA	Mathematics	1	1	5	20		55	225
0125MSA	-Analytic geometry in level -Calculation	3	-		45		105	
111Ch	General Chemistry 1	2	2	4	20	25	105	150
111B	Geological and Biological science General Biology	2	2	4	20	25	105	150
				25				

**Science Division
Basic Education
Second Year**

First Term

		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
Ed211	Classroom and School Administration	2	-	2	30		70	100
Curr311	Ecology 2	2	-	2	30		70	100
102Ch	Organic Chemistry	2	2	4	20	25	105	150
Ed	Optional educational course	2	-	2	30		70	100
M111	Musical skills	1	2	6	20	20	60	200
	Motor Skills	1	2		20	20	60	
122B	Geological and Biological sciences Plant morphology and anatomy + taxonomy plant	1+2	2	5	30	30	140	200
211G	Earth materials + Economic Geology	3	2	5	30	30	140	200
Curr211	Micro - teaching	-	2	2	20	30	-	50
				28				

Second Term

		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
Psy211	Learning psychology	2	1	3	35	15	75	125
Curr222	Educational Technology	2	2	4	45	20	85	150
122MSA	analytic engineering in a vacuum	2	-	2	30		70	100
D211	child drama and theater	2	-	2	30		70	100
Z211 Z221	Geological and Biological Siences Invertebrates + Chords	2	2	4	20	25	105	150
Art211	Manual and technical skills	1	3	4	25	30	70	125
121Ph 122Ph	Physics Heat Optics	2	1	6	15	20	90	250
Curr221	Micro teaching 2	-	2		2	20	30	
				27				

**Science Division
Basic Education
Third Year
First Term**

First Term								
		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
Curr311	Methodology 1	2	1	3	35	15	75	125
Curr312	Educational Technology (In specialty)	1	2	5	15	15	70	150
Curr313	Computer in specialty	1	1		25	25	-	
221Ch	Inorganic Chemistry	3	2	5	30	30	140	200
222Ph	Biophysics	2	1	3	15	20	90	125
R211	Religion and Day Issues	2		2	30		70	100
212G	Geological and Biological Sciences	2	2	6	20	25	105	250
	Molecular Biological Cell+ Embryos Space Solar Group	2	-		30	-	70	
	Field training 1	Full	Day		25	25		50
				21				

Second Term								
		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
Ed321	Educational Thought and its Educational Application	2	-	2	30		70	100
	Optional Cultural Course	2	-	2	30		70	100
Ed322	Adult education assets and methods	2	-	2	30		70	100
231Ch	Physics Chemistry	3	2	5	30	30	140	200
112Z	Biological and Geological Science	2	2	8	20	25	105	300
	Human Body Biology	2	2		20	25	105	
111Ph	Physics Matter properties	2	1	6	15	20	90	150
112Ph	Electricity and Magnetism	2	1		15	20	90	
	Field Training 2	Full	Day		25	25		50
				25				

**Science Division
Basic Education
Fourth Year**

First Term

		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
Curr411	Methodology 2	2	1	3	35	15	75	125
Psy411	Mental health and psychological counseling	2		2	30		70	100
Curr412	Curriculum	2		2	30		70	100
B213	Biological and Geological Sciences Fundamentals of Microbiology + Biotechnology	1+1	2	4	20	25	105	150
224Ch	General Chemistry 2	3	2	5	30	30	140	200
212Ph	Physics Vibrations and waves	2	2	7	20	25	105	275
216Ph	Modern Physics	2	1		15	20	90	
	Field Training 1	Full	Day		25	25		50
				23				

Second Term

		Hours Number			Subject degree(Last Year)			
Course Number	Subject name	Theoretical	Practical	Total	Class works	Oral	Written	Total
Psy321	The psychology of special categories	2		4	30		70	200
Curr321	The psychology of special categories	2			30		70	
Ed421	Education systems and contemporary trends	2	-	2	30		70	100
403 B	Geological and Biological sciences Insects and parasites, and the environment	2	2	8	20	25	105	300
322 G	Environmental geology + Egypt Geology	2	2		20	25	105	
231Ch	Organic Chemistry	3	2	5	30	30	140	200
213Ph	Astronomical and meteorological Physics	2		2	30		70	100
Curr411	Integrated Sciences	2		2	30		70	100
Psy421	Individual differences and psychometric	2	1	3	35		90	125
	Field training 2	Full	Day		25	25		50
				23				

