

**Prince El- Hassan Bin Talal For Natural Resources & Environment  
Land & Water Management**

**Study Program : Bachelor  
Study Plan Type : Major  
Academic Year : 2017**

**The requirements to obtain a Bachelor degree is :-**

**\* The minimum requirements to get a Bachelor degree in / Land & Water Management / is to pass 132 credit hours, according to this study plan.**

**\* The credit hours are distributed to get a Bachelor degree as follows :-**

	<b>Number of credit hours</b>	
<b>University Requirements</b>	<b>27.000</b>	
<b>Compulsory</b>	<b>12.000</b>	
<b>Elective</b>	<b>15.000</b>	
<b>Faculty Requirements</b>	<b>20.000</b>	
<b>Compulsory</b>	<b>20.000</b>	
<b>Specialization Requirments</b>	<b>82.000</b>	
<b>Compulsory</b>	<b>67.000</b>	
<b>Elective</b>	<b>15.000</b>	
<b>Free Courses</b>	<b>3.000</b>	<b>0.000</b>
<b>Pre-requist Courses</b>	<b>0.000</b>	<b>0.000</b>
<b>Total :</b>	<b>132.000</b>	

**University Requirements Credit Hours : 27**  
**Requirement type : Compulsory Credit Hours :12**

<b>Course Number</b>	<b>Course Name</b>	<b>Credit Hours</b>	<b>Theoretical</b>	<b>Practical</b>	<b>Pre - Requisite</b>
0111404117	Military Science	3.000	3.000	0.000	
0111404118	National Education	3.000		0.000	
0121601101	Arabic Language	3.000	3.000	0.000	( 111405098 OR 2110099 ) OR 121601099
0121602101	English Language	3.000	3.000	0.000	( 111405099 OR 2120099 ) OR 121602099

**University Requirements Credit Hours : 27**  
**Requirement type : Elective Credit Hours :15**

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite
1804001128	Cyber Hygiene	3.000	3.000	0.000	110108099
2210031100	digital culture	3.000	3.000	0.000	
1916033201	Italian Language (2)	3.000	3.000	0.000	1716031101
1916034101	Russian Language (1)	3.000	3.000	0.000	
1916034102	Russian Language (2)	3.000	3.000	0.000	
1916034201	Japanese (2)	3.000	3.000	0.000	1716031102
1916035101	Turkish Language (1)	3.000	3.000	0.000	
1916036101	Korean Language (1)	3.000	3.000	0.000	
1916036102	Korean Language(2)	3.000	3.000	0.000	1916036101
1916037101	German Language (1)	3.000	3.000	0.000	
1916038101	Chinese Language (1)	3.000	3.000		
1916039101	Polish Language (1)	3.000	3.000	0.000	
1714041102	Introduction to Psychcology	3.000	3.000		
1714041103	Life Skills	3.000	3.000		
1714041116	Archaeology and Tourism	3.000	3.000		
1914041129	Creativity and social entrepreneurship	3.000	3.000	0.000	
1914041130	Integrity Transperancy and anti - Corruption	3.000	3.000	0.000	
1814041195	Disability and Healthy Community	3.000	3.000		
1814041197	Selected Topics in National Trends	3.000	3.000		
1814041198	Education for Sustainable Development	3.000	3.000		
1814041199	Adjustment and Mental Health	3.000	3.000		
1814041200	Introduction to Education	3.000	3.000		
1914042111	Media Education	3.000	3.000	0.000	
2101081139	Physical Culture	3.000	3.000	0.000	
2201081140	Development and Environment	3.000	3.000	0.000	

**University Requirements Credit Hours : 27**  
**Requirement type : Elective Credit Hours :15**

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite
0110108104	Energy and its Sources	3.000	3.000	0.000	
0110108113	Biotechnology and Society	3.000	3.000	0.000	
0110108114	Automobile Essentials	3.000	3.000	0.000	
0110108115	Computer Ethics	3.000	3.000	0.000	
0110108130	Health and Nutrients	3.000	3.000	0.000	
0110108131	Health Education and First Aid	3.000	3.000	0.000	
0110108132	Sport and Health	3.000	3.000	0.000	
0110108133	Environmental Awareness	3.000	3.000	0.000	
0140108134	Ethics in Natural Science	3.000	3.000	0.000	
0170108135	Reproductive Health	3.000	3.000	0.000	
0140108166	Pharmaceutical Edification	3.000	3.000	0.000	
0111404101	University life of Student	3.000	3.000	0.000	
0111404104	Family and Child Education	3.000	3.000	0.000	
0161404107	Citizenship and Human Rights	3.000	3.000	0.000	
0111404110	Islam and Current Issues	3.000	3.000	0.000	
0111404111	Islamic Thought	3.000	3.000	0.000	
0111404112	Jerusalem : History and civilization	3.000	3.000	0.000	
0111404113	Fundamentals of Art and Literature Aestheticism	3.000	3.000	0.000	
0161404114	Cultural Heritage in Jordan	3.000	3.000	0.000	
0111404114	History and Civilization of Jordan	3.000	3.000	0.000	
0111404115	Sociology	3.000	3.000	0.000	
0161404115	Humanistic Moral and Values Education	3.000	3.000	0.000	
0161404116	Conflict Resolution and Accepting Others Education	3.000	3.000	0.000	
0141404119	Leadership And Education	3.000	3.000		
0111404120	Economic and Management Science	3.000	3.000	0.000	

**University Requirements Credit Hours : 27**  
**Requirement type : Elective Credit Hours :15**

<b>Course Number</b>	<b>Course Name</b>	<b>Credit Hours</b>	<b>Theoretical</b>	<b>Practical</b>	<b>Pre - Requisite</b>
0111404121	Law and the Ordering of Our Life	3.000	3.000	0.000	
0111404122	Principles of Sign Language	3.000	3.000		
0151404125	Entrepreneurship Principles	3.000	3.000		
0141404193	Palestinian Cause	3.000	3.000	0.000	
0161404194	Arabic Language and Current Issues	3.000	3.000	0.000	
0111405102	Applied Arabic Language	3.000	3.000	0.000	
0111405111	Applied English Language	3.000	3.000	0.000	
0111405112	Technical Translation	3.000	3.000	0.000	
0141603101	Italian Language	3.000	3.000		
0151603102	Japanese Language ( Level 1 )	3.000	3.000	0.000	
0121603201	Spanish Language (1)	3.000	3.000		

**Faculty Requirements Credit Hours : 20**  
**Requirement type : Compulsory Credit Hours :20**

<b>Course Number</b>	<b>Course Name</b>	<b>Credit Hours</b>	<b>Theoretical</b>	<b>Practical</b>	<b>Pre - Requisite</b>
1712021120	Environmental Lab Analysis	2.000	1.000	3.000	
1701081138	General Chemistry (1)	3.000	3.000	0.000	
0110101102	Calculus (2)	3.000	3.000	0.000	110108101
0110102107	General Physics	3.000	3.000	0.000	
0110108101	Calculus (1)	3.000	3.000	0.000	
0110108105	General Biology (1)	3.000	3.000	0.000	
0110108116	Computer Skills	3.000	3.000	0.000	( 1001103 AND 1001104 ) OR ( 110108099 OR 1011100 )

**Specialization Requirments Credit Hours : 82**  
**Requirement type : Compulsory Credit Hours :67**

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite
1712011101	General Geology (1)	3.000	3.000	0.000	
1712011291	Remote Sensing	3.000	2.000	3.000	110102107 AND 110108116
1712021210	Hydropedology	3.000	3.000	0.000	1712021240
1712021230	Soil Biochemistry	3.000	3.000	0.000	1712021240 AND 1712021120
1712021240	Environmental Soil Science	3.000	3.000	0.000	1712011101
1712021241	Environmental Soil Science Lab	1.000	0.000	3.000	1712021240 AND 1712021120
1712021260	Plant Science and Production	3.000	3.000	0.000	110108105
1712021310	Environmental Soil Physics	2.000	2.000	0.000	1712021210 AND 110102107
1712021311	Environmental Soil Physics Laboratory	1.000	0.000	3.000	1712021310 AND 1712021241
1712021320	Environmental soil Chemistry	3.000	2.000	3.000	1712021230 AND 1712021241
1712021321	Chemistry of Environmental Pollutants	3.000	3.000	0.000	1712031250 AND 1712021120
1712021330	Environmental Soil Microbiology	3.000	2.000	3.000	1712021241 AND 1712021230
1712021340	Soil Survey & Land Use	3.000	2.000	3.000	1712021210
1712021350	Irrigation science	3.000	3.000	0.000	1712021240
1712021361	Sustainability of Range & Protected Areas	3.000	3.000	0.000	1712021260
1712021410	Soil Water Plant Relationships	3.000	3.000	0.000	1712021310
1712021411	Soil Spatial & Temporal Variability	3.000	3.000	0.000	1712031240 AND 1712031250
1712021420	Soil Fertility & Fertilizers	3.000	2.000	3.000	1712021320
1712021430	Remediation of Polluted Ecosystems	3.000	3.000	0.000	1712021321
1712021440	Soil & Water Conservation	3.000	3.000	0.000	1712021310
1712021441	Combating Desertification and Drought	3.000	3.000	0.000	1712021440 AND 1712021361
1712021477	Field Training	3.000	3.000	0.000	
1712031240	Geographic Information Systems	3.000	2.000	3.000	110108116 AND 1712011291

**Specialization Requirments Credit Hours : 82**  
**Requirement type : Compulsory Credit Hours :67**

<b>Course Number</b>	<b>Course Name</b>	<b>Credit Hours</b>	<b>Theoretical</b>	<b>Practical</b>	<b>Pre - Requisite</b>
<b>1712031250</b>	<b>Environmental Science</b>	<b>3.000</b>	<b>3.000</b>	<b>0.000</b>	<b>110108105 AND 1701081138</b>



**Specialization Requirments Credit Hours : 82**  
**Requirement type : Elective Credit Hours :15**

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite
1712021273	Introduction to Nutrition Science	3.000	3.000	0.000	1701081138
1712021274	Fundamentals of Agricultural Economics	3.000	3.000	0.000	110108101
1712021275	Introduction to Plant Protection	3.000	3.000	0.000	1712021260
1712021276	Introduction to Animal Production	3.000	3.000	0.000	110108105
1712021341	Landscape Ecology	3.000	3.000	0.000	1712031240
1712021362	Environmental Model Forest	3.000	3.000	0.000	1712031250 AND 1712021260
1712021370	Environmental Volunteering	3.000	3.000	0.000	1712031250
1712021412	Engineering Soil Properties	3.000	3.000	0.000	1712021310
1712021450	Irrigation Practices	3.000	3.000	0.000	1712021350
1712021451	Reuse of Treated Wastewater	3.000	3.000	0.000	1712021210
1712021452	Design of Automated Irrigation Systems	3.000	3.000	0.000	1712021350
1712021463	Non-traditional Agriculture	3.000	3.000	0.000	1712021260 AND 1712021350
1712021464	Bio Systems Management	3.000	3.000	0.000	1712021361
1712031241	Meterology	3.000	3.000	0.000	110102107
1712031253	Fluid Science	3.000	3.000	0.000	110102107
1712031321	Occupational and Environmental Safety and Health	3.000	3.000	0.000	1701081138 AND 110108105
1712031420	Environmental Impact Assessment	3.000	3.000	0.000	1712031250
1712031431	Climate Change	3.000	3.000	0.000	1712031250

**Pre-Requist Courses Credit Hours : 0**  
**Requirement type : Credit Hours :0**

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite
0001001096	Computer Skills Test	0.000	0.000	0.000	
0110108099	Computer Skills/ Prerequisite	3.000	3.000	0.000	1001096
0002110096	Arabic Placement Test	0.000	0.000	0.000	
0002120096	English Placement Test	0.000	0.000	0.000	
0121601099	Arabic Language / Pre-requisite	3.000	3.000		2110096
0121602099	English Language / Pre-requisite	3.000	3.000		2120096

free study materials are (3) credit hours, The student chooses it from any of the courses offered by the university departments.