

**Prince El- Hassan Bin Talal For Natural Resources & Environment
Geology & Environment**

**Study Program : Bachelor
Study Plan Type : Major
Academic Year : 2022**

The requirements to obtain a Bachelor degree is :-

*** The minimum requirements to get a Bachelor degree in / Geology & Environment / is to pass 132 credit hours, according to this study plan.**

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

| | Number of credit hours | |
|-----------------------------------|-------------------------------|--------------|
| University Requirements | 27.000 | |
| Compulsory | 18.000 | |
| Elective | 9.000 | |
| Faculty Requirements | 20.000 | |
| Compulsory | 20.000 | |
| Specialization Requirments | 82.000 | |
| Compulsory | 67.000 | |
| Elective | 15.000 | |
| Free Courses | 3.000 | 0.000 |
| Pre-requist Courses | 0.000 | 0.000 |
| Total : | 132.000 | |

University Requirements Credit Hours : 27
Requirement type : Compulsory Credit Hours :18

| Course Number | Course Name | Credit Hours | Theoretical | Practical | Pre - Requisite | Cours e Type |
|----------------------|--------------------------------------|---------------------|--------------------|------------------|------------------------|---------------------|
| 2116011101 | Arabic Communication Skills | 3.000 | 3.000 | 0.000 | 121601099 | online learning |
| 2116021101 | English Communication Skills | 3.000 | 3.000 | 0.000 | 121602099 | online learning |
| 2214041117 | Military Science | 3.000 | 3.000 | | | online learning |
| 1714041118 | National Education | 3.000 | 3.000 | 0.000 | | in class |
| 2114041123 | Leadership and Social Responsibility | 2.000 | 2.000 | 0.000 | | online learning |
| 2114041124 | Enterpreneurship and Innovation | 2.000 | 2.000 | 0.000 | | online learning |
| 2114041125 | Life Skills | 2.000 | 2.000 | 0.000 | | online learning |

University Requirements Credit Hours : 27
Requirement type : Elective Credit Hours :9

| Course Number | Course Name | Credit Hours | Theoretical | Practical | Pre - Requisite | Cours e Type |
|---------------|--------------------------------------|--------------|-------------|-----------|-----------------|------------------|
| 1804001128 | Cyber Hygiene | 3.000 | 3.000 | 0.000 | 110108099 | in class |
| 2210031100 | digital culture | 3.000 | 3.000 | 0.000 | | online learning |
| 2416031102 | Spanish Language (2) | 3.000 | 3.000 | 0.000 | | |
| 2416031103 | French Language (1) | 3.000 | 3.000 | 0.000 | | blended learning |
| 2416031104 | French Language (2) | 3.000 | 3.000 | 0.000 | | |
| 1916033201 | Italian Language (2) | 3.000 | 3.000 | 0.000 | 1716031101 | blended learning |
| 1916034101 | Russian Language (1) | 3.000 | 3.000 | 0.000 | | online learning |
| 1916034102 | Russian Language (2) | 3.000 | 3.000 | 0.000 | | |
| 1916034201 | Japanese (2) | 3.000 | 3.000 | 0.000 | 1716031102 | blended learning |
| 1916035101 | Turkish Language (1) | 3.000 | 3.000 | 0.000 | | online learning |
| 1916036101 | Korean Language (1) | 3.000 | 3.000 | 0.000 | | in class |
| 1916036102 | Korean Language(2) | 3.000 | 3.000 | 0.000 | 1916036101 | in class |
| 1916037101 | German Language (1) | 3.000 | 3.000 | 0.000 | | online learning |
| 1916038101 | Chinese Language (1) | 3.000 | 3.000 | | | online learning |
| 1916039101 | Polish Language (1) | 3.000 | 3.000 | 0.000 | | in class |
| 1714041101 | University Life of Student | 3.000 | 3.000 | | | online learning |
| 1714041102 | Introduction to Psychology | 3.000 | 3.000 | | | online learning |
| 1714041104 | Family and Child Education | 3.000 | 3.000 | | | online learning |
| 1714041107 | Citizenship and Human Rights | 3.000 | 3.000 | | | online learning |
| 1714041110 | Islam Current Issues | 3.000 | 3.000 | | | online learning |
| 1714041111 | Islamic Thought | 3.000 | 3.000 | | | online learning |
| 1714041112 | Jerusalem : Histroy and Civilization | 3.000 | 3.000 | | | online learning |
| 1714041113 | Citizenship and Human Rights | 3.000 | 3.000 | 0.000 | | online learning |

University Requirements Credit Hours : 27
Requirement type : Elective Credit Hours :9

| Course Number | Course Name | Credit Hours | Theoretical | Practical | Pre - Requisite | Course Type |
|---------------|--|--------------|-------------|-----------|-----------------|-----------------|
| 1714041114 | Histry and Civilization of Jordan | 3.000 | 3.000 | | | online learning |
| 1714041115 | Sociology | 3.000 | 3.000 | | | online learning |
| 1714041116 | Archaeology and Tourism | 3.000 | 3.000 | | | online learning |
| 1714041121 | Law and Ordering of Our Life | 3.000 | 3.000 | | | online learning |
| 1714041122 | Principles of Sign Language | 3.000 | 3.000 | | | online learning |
| 1714041126 | Humanistic Moral and Values Education | 3.000 | 3.000 | | | online learning |
| 1714041127 | Conflict Resolution and Accept Others | 3.000 | 3.000 | | | online learning |
| 1714041128 | Culutral Heritage in Jordan | 3.000 | 3.000 | | | online learning |
| 1914041130 | Integrity Transperancy and anti - Corruption | 3.000 | 3.000 | 0.000 | | online learning |
| 1714041193 | Palestinian Cause | 3.000 | 3.000 | | | online learning |
| 1714041194 | Arabic Language and Current Issues | 3.000 | 3.000 | | | online learning |
| 1814041195 | Disability and Healthy Community | 3.000 | 3.000 | | | online learning |
| 1814041197 | Selected Topics in National Trends | 3.000 | 3.000 | | | |
| 1814041198 | Education for Sustainable Development | 3.000 | 3.000 | | | online learning |
| 1814041199 | Adjustment and Mental Health | 3.000 | 3.000 | | | online learning |
| 1814041200 | Introduction to Education | 3.000 | 3.000 | | | online learning |
| 1914042111 | Media Education | 3.000 | 3.000 | 0.000 | | online learning |
| 2101081139 | Physical Culture | 3.000 | 3.000 | 0.000 | | online learning |
| 2201081140 | Development and Environment | 3.000 | 3.000 | 0.000 | | online learning |
| 2401081141 | Oral and Dental Healthcare | 3.000 | 3.000 | 0.000 | | online learning |
| 0110108113 | Biotechnology and Society | 3.000 | 3.000 | 0.000 | | online learning |
| 0110108115 | Computer Ethics | 3.000 | 3.000 | 0.000 | | online learning |

University Requirements Credit Hours : 27
Requirement type : Elective Credit Hours :9

| Course Number | Course Name | Credit Hours | Theoretical | Practical | Pre - Requisite | Cours e Type |
|----------------------|--------------------------------|---------------------|--------------------|------------------|------------------------|---------------------|
| 0110108130 | Health and Nutrients | 3.000 | 3.000 | 0.000 | | online learning |
| 0110108131 | Health Education and First Aid | 3.000 | 3.000 | 0.000 | | online learning |
| 0110108132 | Sport and Health | 3.000 | 3.000 | 0.000 | | online learning |
| 0140108134 | Ethics in Natural Science | 3.000 | 3.000 | 0.000 | | online learning |
| 0170108135 | Reproductive Health | 3.000 | 3.000 | 0.000 | | online learning |
| 0140108166 | Pharmaceutical Edification | 3.000 | 3.000 | 0.000 | | |
| 0121601105 | Applied Arabic Language | 3.000 | 3.000 | | | online learning |
| 0121602102 | Applied English Language | 3.000 | 3.000 | 0.000 | | online learning |
| 0121602103 | Technical Translation | 3.000 | 3.000 | 0.000 | | online learning |
| 0141603101 | Italian Language | 3.000 | 3.000 | | | in class |
| 0151603102 | Japanese Language (Level 1) | 3.000 | 3.000 | 0.000 | | blended learning |
| 0121603201 | Spanish Language (1) | 3.000 | 3.000 | | | blended learning |

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

| Course Number | Course Name | Credit Hours | Theoretical | Practical | Pre - Requisite | Cours e Type |
|---------------|----------------------------|--------------|-------------|-----------|---|------------------|
| 1712021120 | Environmental Lab Analysis | 2.000 | 1.000 | 3.000 | | in class |
| 1701081138 | General Chemistry (1) | 3.000 | 3.000 | 0.000 | | blended learning |
| 0110101102 | Calculus (2) | 3.000 | 3.000 | 0.000 | 110108101 | blended learning |
| 0110102107 | General Physics | 3.000 | 3.000 | 0.000 | | in class |
| 0110108101 | Calculus (1) | 3.000 | 3.000 | 0.000 | | blended learning |
| 0110108105 | General Biology (1) | 3.000 | 3.000 | 0.000 | | blended learning |
| 0110108116 | Computer Skills | 3.000 | 3.000 | 0.000 | (1001103 AND 1001104) OR (110108099 OR 1011100) | blended learning |

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

| Course Number | Course Name | Credit Hours | Theoretical | Practical | Pre - Requisite | Cours e Type |
|---------------|---------------------------------|--------------|-------------|-----------|------------------------------|--------------|
| 1712011101 | General Geology (1) | 3.000 | 3.000 | 0.000 | | in class |
| 1712011102 | General Geology (2) | 3.000 | 3.000 | 0.000 | 1712011101 | in class |
| 1712011103 | Practical General Geology (1) | 1.000 | 0.000 | 3.000 | 1712011101 | in class |
| 1712011104 | Practical General Geology (2) | 1.000 | 0.000 | 3.000 | 1712011103 | in class |
| 1712011211 | Stratigraphy | 3.000 | 2.000 | 3.000 | 1712011102 | in class |
| 1712011212 | Paleontology | 3.000 | 2.000 | 3.000 | 1712011211 | in class |
| 1712011221 | Mineralogy | 3.000 | 2.000 | 3.000 | 1712011103 AND 1712011102 | in class |
| 1712011222 | Optical Mineralogy Lab | 1.000 | 0.000 | 3.000 | 1712011221 synchronous | in class |
| 1712011241 | Natural Hazards | 3.000 | 3.000 | 0.000 | 1712011101 | in class |
| 1712011291 | Remote Sensing | 3.000 | 2.000 | 3.000 | 110102107 AND 110108116 | in class |
| 1712011331 | Igneous & Metamorphic Rocks | 3.000 | 2.000 | 3.000 | 1712011222 | in class |
| 1712011332 | Sedimentology | 3.000 | 2.000 | 3.000 | 1712011212 AND 1712011222 | in class |
| 1712011351 | Structual Geology | 3.000 | 2.000 | 3.000 | 1712011104 AND 1712011211 | in class |
| 1712011361 | Principles of Geophysics | 3.000 | 2.000 | 3.000 | 110102107 | in class |
| 1712011392 | Field Geotechnical Applications | 2.000 | 0.000 | 6.000 | 1712021120 AND 1712011351 | in class |
| 1712011433 | Economic Geology | 2.000 | 2.000 | 0.000 | 1712011331 AND 1712011332 | in class |
| 1712011434 | Geology of Jordan | 3.000 | 3.000 | 0.000 | 1712011332 AND 1712011331 | in class |
| 1712011452 | Engineering Geology | 3.000 | 2.000 | 3.000 | 1712011351 | in class |
| 1712011471 | Environmental Geochemistry | 3.000 | 2.000 | 3.000 | 1712011331 AND 1701081138 | in class |
| 1712011494 | Petroleum Geology | 3.000 | 3.000 | 0.000 | 1712011351 | in class |
| 1712011495 | Applied Field Geology | 3.000 | 0.000 | 9.000 | 1712011392 AND 1712011241 | in class |
| 1712021240 | Environmental Soil Science | 3.000 | 3.000 | 0.000 | | in class |
| 1712031240 | Geographic Information Systems | 3.000 | 2.000 | 3.000 | 110108116 AND 1712011291 | in class |
| 1712031250 | Environmental Science | 3.000 | 3.000 | 0.000 | 110108105 AND 1701081138 | in class |

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

| Course Number | Course Name | Credit Hours | Theoretical | Practical | Pre - Requisite | Cours e Type |
|----------------------|-----------------------|---------------------|--------------------|------------------|-----------------------------|---------------------|
| 1712031310 | Groundwater Hydrology | 3.000 | 2.000 | 3.000 | 1712011101 AND 110101102 | in class |

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

| Course Number | Course Name | Credit Hours | Theoretical | Practical | Pre - Requisite | Cours e Type |
|---------------|-------------------------------------|--------------|-------------|-----------|---------------------------|------------------|
| 1712011205 | Astronomy | 3.000 | 3.000 | 0.000 | | blended learning |
| 1712011206 | Geomorphology | 3.000 | 3.000 | 0.000 | 1712011104 | blended learning |
| 1712011207 | Geotops | 3.000 | 3.000 | 0.000 | 1712011101 | blended learning |
| 1712011313 | Biostratigraphy | 3.000 | 3.000 | 0.000 | 1712011212 | in class |
| 1712011314 | Sequence Stratigraphy | 3.000 | 3.000 | 0.000 | 1712011332 | |
| 1712011323 | Mineral & Environmental Resources | 3.000 | 3.000 | 0.000 | 1712011221 | blended learning |
| 1712011396 | Computer Applications in Geology | 3.000 | 2.000 | 3.000 | 1712011291 AND 1712031240 | |
| 1712011435 | Oil Shale | 3.000 | 3.000 | 0.000 | 1712011332 | in class |
| 1712011436 | Industrial Materials | 3.000 | 3.000 | 0.000 | 1712011331 AND 1712011332 | in class |
| 1712011453 | Geotectonics | 3.000 | 3.000 | 0.000 | 1712011351 AND 1712011331 | blended learning |
| 1712011454 | Rock Mechanics | 3.000 | 2.000 | 3.000 | 1712011452 | blended learning |
| 1712011462 | Enviornmental & Applied Geophysics | 3.000 | 3.000 | 0.000 | 1712011361 | blended learning |
| 1712011463 | Seismology | 3.000 | 3.000 | 0.000 | 1712011361 | blended learning |
| 1712011464 | Well Logging | 3.000 | 3.000 | 0.000 | 1712011494 AND 1712011361 | |
| 1712011496 | Mining and mineral Prospecting | 3.000 | 3.000 | 0.000 | 1712011331 | in class |
| 1712021411 | Soil Spatial & Temporal Variability | 3.000 | 3.000 | 0.000 | 1712031240 AND 1712031250 | in class |
| 1712031150 | Environmental Statistics | 3.000 | 3.000 | 0.000 | | blended learning |
| 1712031210 | Water Chemistry | 3.000 | 3.000 | 0.000 | 1701081138 AND 1712021120 | in class |
| 1712031241 | Meterology | 3.000 | 3.000 | 0.000 | 110102107 | in class |
| 1712031330 | Solid & Hazardous Waste | 3.000 | 3.000 | 0.000 | 1712031250 | in class |
| 1712031420 | Environmental Impact Assessment | 3.000 | 3.000 | 0.000 | 1712031250 | in class |
| 1712031431 | Climate Change | 3.000 | 3.000 | 0.000 | 1712031250 | blended learning |

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

| Course Number | Course Name | Credit Hours | Theoretical | Practical | Pre - Requisite | Cours e Type |
|----------------------|----------------------------------|---------------------|--------------------|------------------|------------------------|---------------------|
| 0001001096 | Computer Skills Test | 0.000 | 0.000 | 0.000 | | in class |
| 0110108099 | Computer Skills/ Prerequisite | 3.000 | 3.000 | 0.000 | 1001096 | online learning |
| 0002110096 | Arabic Placement Test | 0.000 | 0.000 | 0.000 | | in class |
| 0002120096 | English Placement Test | 0.000 | 0.000 | 0.000 | | in class |
| 0121601099 | Arabic Language / Pre-requisite | 3.000 | 3.000 | | 2110096 | blended learning |
| 0121602099 | English Language / Pre-requisite | 3.000 | 3.000 | | 2120096 | blended learning |

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