

Courses Description

College: Prince El- Hassan Bin Talal For Natural Resources & Environment

Department: Earth & Environmental Sciences

Couse ID: 801711 **Description:** Basin Analysis

Full Course Description:

Couse ID: 801712 **Description:** Geology of Petroleum

Full Course Description:

Couse ID: 801721 **Description:** Prospecting Geology

Full Course Description:

Couse ID: 801731 **Description:** Building and Construction Materials

Full Course Description:

Couse ID: 801751 **Description:** Advance Structural Geology

Full Course Description:

Couse ID: 801752 **Description:** Remote Sensing Techniques & its Earth Application

Full Course Description:

Couse ID: 801753 **Description:** Engineering Geology

Full Course Description:

Couse ID: 801754 **Description:** Rock Mechanics

Full Course Description:

Couse ID: 801761 **Description:** Applied Geophysics

Full Course Description:

Couse ID: 801762 **Description:** Geostatistics

Full Course Description:

Couse ID: 801781 **Description:** Advanced Hydrogeology

Full Course Description:

Couse ID: 801791 **Description:** Seminar

Full Course Description:

Couse ID: 801793 **Description:** Research Mehodology

Full Course Description:

Couse ID: 801794 **Description:** Special Topics

Full Course Description:

Couse ID: 801799 **Description:** Thesis

Full Course Description:

Couse ID: 1201752 **Description:** Remote Sensing Application in Environment

Full Course Description: Principles of remote sensing, including electromagnetic radiation theory: sensor systems and properties, spectral signatures of natural and human-made materials Application of remote sensing principles and digital image processing techniques to environmental science including weather and climate, hydrology, oceanography, vegetation, soils , land cover and sustainable development.

Couse ID: 1201761 **Description:** Environmental Geophysics

Full Course Description: Use of gravity , magnetic, electric, seismic (refraction & refraction) electromagnetic and radiometric methods in detection, monitoring and warning against geological hazards on landfills, sinkholes, reservoirs, and shoreline and ground water pollution, geophysical field surveys, technical reports.

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Couse ID: 1201791 **Description:** Research Methodology

Full Course Description: Research methodologies, information resources project design samples selection, data collection and analysis , sightings and documentation , research conduct and ethics, technical writing of proposals and reports, preparing seminars and posters.

Couse ID: 1201792 **Description:** Special Topics

Full Course Description: Special topics in Environmental Sciences and Management

Couse ID: 1201793 **Description:** Seminar

Full Course Description: Provides an opportunity for presentation and discussion of topics which serve to integrate the various disciplinary inputs to the programme. Topics include emerging environmental concerns in Jordan and the region, developments in the methodology and practice of Environmental management and case study experiences. Seminars will be presented by the students and invited participants including representatives of government departments, industry, consultancies and other local and visiting academics

Couse ID: 3801799 **Description:** Thesis

Full Course Description:

Couse ID: 6801799 **Description:** thesis

Full Course Description:

Couse ID: 9801799 **Description:** Thesis

Full Course Description:

Couse ID: 141201711 **Description:** Basin Analysis

Full Course Description: 0141201711 Basin Analysis: 2 CH (0 + 2)□
This course covers the division of sedimentary basins in the world, the evolution of sedimentary basins, the stratigraphic and depositional environments and the use of geophysics (seismic methods) in the study of sedimentary layers. An applied study in terms of oil of some sedimentary basins, such as basins, Azraq and Sirhan.□

Couse ID: 141201712 **Description:** Geology of Petroleum

Full Course Description: 0141201712 Petroleum Geology: 2 CH (0 + 2)□
This course deals with a historical introduction to petroleum, the evolution of petroleum geology and its relation to other sciences, physical properties and chemical compounds of petroleum, origin and composition, migration and assembly of petroleum, reservoir rocks and their petrophysical properties, petroleum traps, petroleum reserves.□

Couse ID: 141201721 **Description:** Prospecting Geology

Full Course Description: 0141201721 Exploration Geology: 3 C (0 + 3)□
This course deals with geological criteria in the exploration , geological exploration methods and their importance, stages of exploration, exploration and exploration of mineral ores, exploration and exploration of oil and gas, exploration systems, geological documentation in mineral ores, sampling, Ore reserve calculations.?

Couse ID: 141201731 **Description:** Building and Construction Materials□

Full Course Description: 0141201731 Building materials and constructions: 3 CH (0 + 3)□
This course deals with marble and building stones, the characteristics of rough aggregates and the tests carried out for it, the specifications of fine aggregates and their tests, raw materials used in cement and different manufacturing methods, concrete, mud products and constructions, secondary construction materials (lightweight aggregates and gypsum) And building stones in Jordan. Its location, its specifications, and its tests.□

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Couse ID: 141201751 **Description:** Advance Structural Geology

Full Course Description: 0141201751 Advanced Structural Geology: 3 CH (0 +3)□
This course deals with the analysis of stress and agitation, mechanical properties of rocks, geometric evaluation of normal, reverse and strike-slip faults, the effect of elongation in the rock on the assessment of sedimentary basins, solving structural problems using stereographic techniques, geological structures.

Couse ID: 141201752 **Description:** Remote Sensing Techniques & its Earth

Full Course Description: 0141201752 Remote Sensing Techniques and its Ground Applications: 2 CH (0+ 2)□
This course covers remote sensing techniques, remote sensing applications such as mineral resources exploration methods, geological and engineering uses (mining, mining, dams, etc.), coastal and coastal engineering, environmental engineering, soil and land classification. An applied research project on a local, regional or global scale.□

Couse ID: 141201753 **Description:** Engineering Geology

Full Course Description: 0141201753 Engineering Geology: 3 CH (0 + 3)□
This course deals with the definition of engineering geology, principles of geophysical investigation, geometric characteristics of soil, geometric characteristics of rocks, methods of site exploration, field tests, rock mass characteristics, engineering geology and geological processes, geology of dams, roads, bridges and tunnels.

Couse ID: 141201761 **Description:** Applied Geophysics□

Full Course Description: 0141201761 Applied Geophysics: 3 CH (0 + 3)□
This course deals with geophysical exploration methods including gravity, magnetism, electromagnetism, electromagnetic and seismic and refractive seismic methods, the role of geophysical methods in addressing site problems of installations, field applications, writing technical reports and laboratories.

Couse ID: 141201762 **Description:** Economic Geology

Full Course Description: 0141201762 Economic Geology: 3 CH (0 + 3)□
This course includes the study of the rock nature of the ore, the ore of the basal assemblies to the base, the ore of the acidic complexes, the sedimentary materials of the iron and manganese, the class ore in the marine and volcanic pools, the ore associated with the layers associated with sedimentation, the ores, the shifting ores, the mineralization, Nonferrous deposits, nature and division of non-metallic deposits, geological status, mineral formation, origin, distribution of rocks and major industrial minerals, historical cases.□

Couse ID: 141201781 **Description:** Advanced Hydrogeology

Full Course Description: 0141201781 Advanced Hydrogeology: 2 C (0 + 2)□
This course deals with the movement of groundwater: Darcy's law, hydraulic conductivity and permeability of terrestrial materials, mapping of flow in aquifer systems, movement of ground water in fractured rocks, movement of water in unsaturated range, hydraulic experiments: Tiss equations, In cracked or low-permeable rocks, development of water resources, introduction to modeling groundwater movement.

Couse ID: 141201782 **Description:** Advanced Environmental Geology

Full Course Description: 0141201782 Advanced Environmental Geology: 3 CH(0 + 3)□
This course aims to study basic concepts, natural hazards, including (floods, landslides, earthquakes, volcanoes, hurricanes, storms and natural erosion), human activities and their impact on the surface of the earth. These include (water use, urban development, industry, agriculture, erosion) of the Earth and includes assessment, planning, appropriate legislation and practical study of modern uses of the Earth, study of ecosystems, environmental impact assessment.

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Couse ID: 141201793	Description: Research Mehodology
Full Course Description:	0141201793 Research Methodology: 2 CH (0 + 2)□ This course deals with training in scientific research methods and stages, designing research and sampling, collecting and analyzing information, preparing research results in a way that shows the ability to link and formulate information.
Couse ID: 141201794	Description: Applied Special Topics
Full Course Description:	□ 0141201794 Selected Applied Topics: 2 CH (0 + 2)□ This course deals with selected topics in applied geology.
Couse ID: 141201799	Description: Thesis
Full Course Description:	reasearch hours