2025-2026 Academic Year
List of Courses Offered in Foreign Language
2025-2026 Akademik Yılı
Yabancı Dilde Açılacak Dersler Listesi

Institute of Natural and Applied Sciences
Fen Bilimleri Enstitüsü

	Department *Bölüm*	**Course Code** *Ders Kodu*	**ECTS** *AKTS*	**Course Title** *Dersin Adı*	**Semester** *Dönem*	**Course Content** *Dersin İçeriği*	**Academic Staff** *Dersi Veren Öğretim Elemanı*	**Online Available** *Çevrimiçi*
1	Geological Engineering *Jeoloji Mühendisliği*	JEO 5029	8	Volcanic Facies Analysis	Fall / Spring	Facies Analysis in Volcanic Rocks. Volcanic-Clastic Accumulations. Properties of Pyroclastic Flow Deposits. Ignimbrites and Formation Mechanisms. Field Studies in Terrestrial and Underwater Volcanic Areas.	Prof. Dr. Fuat ERKÜL	x
2	Geological Engineering *Jeoloji Mühendisliği*	JEO 5030	8	Metamorphic Textures	Fall / Spring	General Information about Metamorphism and Minerals. Foliation and Lineation Development. Deformation and Stress Concepts. Deformations in Minerals. Cataclastic Rocks. Direction of Motion in Metamorphic Rocks.	Prof. Dr. Fuat ERKÜL	x
3	Geological Engineering *Jeoloji Mühendisliği*	JEO 5031	8	Petrography of Volcanic Rocks	Fall / Spring	Textural Features of the Volcanic Rocks Forming the Structures and Structures Observed in Volcanic Rocks. Geochemical Characteristics and Classification of Volcanic Rocks by Geochemical Data.	Prof. Dr. Fuat ERKÜL	x
4	Geological Engineering *Jeoloji Mühendisliği*	JEO 5050	8	Measuring The Engineering Properties of Soils	Fall / Spring	Soil Definition. Laboratory Tests on Soils. Determination of Physical Properties of Soils. Atterberg Limits. Sieve Analysis. Hydrometer Analysis. Direct Shear Test. Consolidation Test. Field Tests on Soils. Standard Penetration Test. Pressuremeter Test. Cone Penetration Test. Dilatometer Experiment. Field Application.	Asist. Prof. Dr. Özgür AKTÜRK	x
5	Geological Engineering *Jeoloji Mühendisliği*	JEO 5053	8	Geotechnical Field Investigations	Fall / Spring	The Role of The Geotechnical Engineer in Subsurface Surveys. The Stages of Field Surveys. Field Research Planning. Drilling in Field Research. Sampling from Soil-Rock Samples with Drilling Works. Field Visits. Drilling Log Preparation. In-Situ Soil-Rock Tests. Interpretation of Soil-Rock Properties. Geotechnical Contracts. Geotechnical Reports.	Asist. Prof. Dr. Özgür AKTÜRK	x
6	Geological Engineering *Jeoloji Mühendisliği*	JEO 5071	8	Advanced Magmatic Petrology	Fall / Spring	Major, Trace and Rare Earth Element Geochemistry of Igneous Rocks. Partial Melting and Assimilation and Fractional Crystallization. The Formation of Basaltic and Silicic Magmas. Magma Types and Geotectonic Environments. Magma Related Mid-Ocean Ridge (MOR), Oceanic Arc (OI), Intra-Plate and Subduction. Isotopic Interpretation of The Resource Reservoirs of The Magmas. Mantle Dynamics and Geodynamic Modeling. Global Tectonism and Magmatism Relations.	Prof. Dr. Nurdane İLBEYLİ	x
7	Geological Engineering *Jeoloji Mühendisliği*	JEO 5072	8	Paleoclimatology	Fall / Spring	This course examines the climate conditions that have occurred throughout Earth's geological history and the Earth systems that have influenced these conditions. It covers the investigation of the variables of the climate system and their impacts over long and short time scales. The course introduces the geological archives used in paleoclimatology research.	Res. Asst. Dr. Koray KOÇ	x
8	Geological Engineering *Jeoloji Mühendisliği*	JEO 7035	10	Petrogenesis of Ophiolitic Rocks	Fall / Spring	Mid-Ocean Rift Plate Boundaries Separated The Oceanic Crust Formation. Identification of The Ophiolite. Forming Ophiolite Rocks. Ophiolite Geochemistry. Formation Mechanisms and Their Modeling. The Origin of Ophiolites in Turkey.	Prof. Dr. Nurdane İLBEYLİ	x
9	Geological Engineering *Jeoloji Mühendisliği*	JEO 7049	10	Modern Techniques in Quaternary Research	Fall / Spring	The Quaternary period refers to the last 2.58 million years before the present. This period is distinguished by the emergence of modern human, rapid and abrupt climatic oscillations, the increasing influence of humans on Earth, and their role as a transformative factor affecting the environment. The course covers dating methods, stable isotope geochemistry, trace element geochemistry, and the interpretation of their results, alongside essential sampling techniques used in Quaternary research.	Res. Asst. Dr. Koray KOÇ	x