

## COURSE LIST

### Institute of Natural and Applied Sciences

#### Field : Geological Engineering

Course Title	Code	ECTS Credit	COMU Credit	Lecturer
Quaternary Environment	ULP-21-JM001	7.5	3	Assist. Prof. Dr. Sevinç KAPAN
Gold Deposits	ULP-21-JM002	7.5	3	Assoc. Prof. Dr. Özcan YİĞİT
Hydrothermal Mineral Deposits	ULP-21-JM003	7.5	3	Assoc. Prof. Dr. Özcan YİĞİT
Advance Geoarcheology	ULP-21-JM004	7.5	3	Prof Dr. Doğan Perinçek
Mineral Exploration	ULP-21-JM005	7.5	3	Assoc. Prof. Dr. Özcan Yiğit
Advance Stratigraphy and Sedimentology	ULP-21-JM006	7.5	3	Prof Dr. Doğan Perinçek
Quaternary Stratigraphy	ULP-21-JM007	7.5	3	Assist. Prof. Dr. Sevinç KAPAN
Tectonics of Turkey and surrounding area	ULP-21-JM008	7.5	3	Prof. Dr. Erdinç YİĞİTBAŞ

Course Code	ULP-21-JM001
Name of the Course in English	<b>Quaternary Environment</b>
Name of the Course in Turkish	<b>Kuvaterner Ortamlar</b>
Language of the Course	English
Level of the Course	Master
Lecturer	<b>Assist. Prof. Dr. Sevinç KAPAN</b>
ECTS Credit	7.5
COMU Credit	3
Description	Quaternary environments, geological events occurred during this time period and their effects on climatic changes, the geological evolution of Turkey over this period are the main parts of this course.

Course Code	ULP-21-JM002
Name of the Course in English	<b>Gold Deposits</b>
Name of the Course in Turkish	<b>Altın Yatakları</b>
Language of the Course	English
Level of the Course	Master
Lecturer	<b>Assoc. Prof. Dr. Özcan Yiğit</b>
ECTS Credit	7.5
COMU Credit	3
Description	Gold deposit classes based on their geologic and plate tectonic setting; Orogenic gold deposits, Archean, Proterozoic and Phanerozoic examples; Porphyry and skarn gold deposits; Epithermal gold deposits including low- and high-sulfidation systems in relation to alkalicrelated systems and porphyry environments; Carlin-type gold deposits and their geologic and tectonic settings with classical examples from Basin and Range province of United States including Nevada and northwestern Utah; Iron oxide Cu-Au systems, examples from different tectonic environments; Supergiant Witwatersrand gold fields and discussions on its origin; Exploration for gold deposits.

Course Code	ULP-21-JM003
Name of the Course in English	<b>Hydrothermal Mineral Deposits</b>
Name of the Course in Turkish	<b>Hidrotermal Maden Yatakları</b>
Language of the Course	English
Level of the Course	Master
Lecturer	<b>Assoc. Prof. Dr. Özcan Yiğit</b>
ECTS Credit	7.5
COMU Credit	3
Description	Introduction to hydrothermal ore deposits and research tools to study hydrothermal systems, such as fluid inclusions, isotope studies etc; Porphyry coppermolybdenum-gold and skarn deposits; epithermal deposits including low- and high-

	sulfidation systems in relation to alkalic-related systems and porphyry environments; Carlin-type gold deposits and their geologic and tectonic settings with classical examples from Basin and Range province of United States including Nevada and Northwestern Utah; iron oxide Cu-Au and REE (Rare Earth Elements) systems, examples from different tectonic environments; exploration for hydrothermal mineral deposits.
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Course Code	ULP-21-JM004
Name of the Course in English	<b>Advance Geoarcheology</b>
Name of the Course in Turkish	<b>İleri Jeoarkeoloji</b>
Language of the Course	English
Level of the Course	Master
Lecturer	<b>Prof. Dr. Doğan Perinçek</b>
ECTS Credit	7.5
COMU Credit	3
Description	Earth science principles and methods used in archaeology, the main processes of sediment formation and formation of the archaeological records, dating and provenancing methods, techniques of research and enquiry used to integrate evidence from archaeological and earth science perspectives. (Geoarchaeological studies can significantly enhance interpretations of human prehistory by allowing archaeologists to decipher from sediments and soils the effects of earth processes on the evidence of human activity. The course sets out the essential features of geoarchaeological practice and geomorphological processes, and is deliberately aimed at the archaeologist as practitioner in the field)

Course Code	ULP-21-JM005
Name of the Course in English	<b>Mineral Exploration</b>

Name of the Course in Turkish	<b>Maden Arama</b>
Language of the Course	English
Level of the Course	Doctorate
Lecturer	<b>Assoc. Prof. Dr. Özcan Yiğit</b>
ECTS Credit	7.5
COMU Credit	3
Description	Overview of the nature of the mineral industry, and discussion on the technical, economical, political and environmental factors affecting mineral economics. Application of geology, structure, tectonics, metallogeny, geochemistry, geophysics and remote sensing methods in mineral exploration. Discussion on the technical and economical issues in a successful exploration program. Target selection for national and international exploration programs, and evaluation of exploration technology. Development of a mineral exploration team and presentation of a mineral exploration proposal.

Course Code	ULP-21-JM006
Name of the Course in English	<b>Advance Stratigraphy and Sedimentology</b>
Name of the Course in Turkish	<b>İleri Stratigrafi ve Sedimantoloji</b>
Language of the Course	English
Level of the Course	Doctorate
Lecturer	<b>Prof. Dr. Doğan Perinçek</b>
ECTS Credit	7.5
COMU Credit	3
Description	A detailed understanding of general sedimentary geology, stratigraphic, paleoenvironmental, and tectonic information to be recovered from sedimentary materials. Identification of sedimentary rocks, discussion of sedimentary processes and landforms, interpretation of depositional settings, inference of paleoenvironmental conditions based on information from rock types, sedimentary structures, and other characteristics. Students should also have

progressed in their ability to make observations, collect data, formulate questions, and use data to test hypotheses. Critical thinking and scientific communication through writing and oral communication will also be practiced in this course.

Course Code	ULP-21-JM007
Name of the Course in English	<b>Quaternary Stratigraphy</b>
Name of the Course in Turkish	<b>Kuvaterner Stratigrafisi</b>
Language of the Course	English
Level of the Course	Doctorate
Lecturer	<b>Assist. Prof. Dr. Sevinç Kapan - Yeşilyurt</b>
ECTS Credit	7.5
COMU Credit	3
Description	Sea level changes in Quaternary, climate changes and its effects on the Earth. Paleogeographic situation of the Earth in Quaternary, marine and terrestrial terraces and their lithological and depositional properties. Fauna content and its indicator of time and environment in Quaternary. Stages of Quaternary, Glacial and interglacial periods, Quaternary Dating methods.

Course Code	ULP-21-JM008
Name of the Course in English	<b>Tectonics of Turkey and surrounding area</b>
Name of the Course in Turkish	<b>Türkiye ve Çevresinin Tektoniği</b>
Language of the Course	English
Level of the Course	Master
Lecturer	<b>Prof. Dr. Erdiñç YİĞİTBAŞ</b>
ECTS Credit	7.5
COMU Credit	3
Description	Paleogeographic development and evolution of Turkish terrains. Drifting of Tethyan micro-plates and its role on geological evolution of Turkey. Distinctive properties of Turkish micro-plates. Their recent positions, structural and stratigraphic properties. Neo-tectonic elements of Turkey.