



ERASMUS+ COURSE LIST

FACULTY OF ARCHITECTURE AND DESIGN				
DEPARTMENT OF ARCHITECTURE				
CODE	COURSE	DESCRIPTION	CREDIT	PROFESSOR
Not Available	Building Materials	Explaining the general characteristics. Production and application techniques of building materials; such as timber, stone, earth (ceramics), glass, plastics and metal which are known as main building materials used in building production.	3	-
Not Available	Building Elements	To develop the problem solving ability of students. To make students understand primer performance requirements of building elements and components, to determine the limits and priorities, to cognize building element design methods and improve knowledge.	7	-
Not Available	Gesehichtedes Ersten Alters Udder Antiken Architektur	Die entwicklung und veränderung und veränderung in der architektur von ersten bis zum indüstriellen seitalter su erkların.	3	-
Not Available	Studio-V (Architectural Design)	To be able to identify, discuss and interpret prominent cases from word literature on relevant works of pioneering features.	10	-
Not Available	Modern Architecture in European Cities	In this course, it's aimed to show the students the landmark buildings in European Cities. Students learn the	3	-

		architectural culture of different countries from the Professor's personal experiences.		
Not Available	Cultural Heritage Documentation Techniques	There is always need for reliable and accurate data for documentation of cultural heritage.	3	-
Not Available	Construction Project	Subsystem development in accordance with building function, Impartment of the skill for finding architectural solutions with consideration to technical and legislative factors as well as aesthetical, in the process of integration establishment between subsystems. Teaching how to select building materials	11	-
Not Available	Campus Planning Principles	Get information about university buildings and campus settlements. Get informaiton about the design principles of education buildings.	3	-
Not Available	Architectural Survey and Restoration Project	The building itself is the main source of historical information. A proper documentation of the building is the main an essential thing for a successful restoration project.	3	-
Not Available	Building Materials	Explaining the general characteristics. Production and application techniques of building materials; such as timber, stone, earth (ceramics), glass, plastics and metal which are known as main building materials used in building production.	3	-
<p>FACULTY OF ARCHITECTURE AND DESIGN</p> <p>DEPARTMENT OF URBAN AND REGIONAL PLANNING</p>				
CODE	COURSE	DESCRIPTION	CREDIT	PROFESSOR
Not Available	Spatial Configuration in Faculty Buildings	Get information about spatial configuration. Get information about campus and faculty buildings. Donate basic	3	-

		information and skills about designing faculty buildings.		
Not Available	Architecture Bioclimatique	Les parametres de conception a l'echelle du batiment et urbaine pour une conception bioclimatique.	3	-
Not Available	Projet Architectural 4	Realisation d'une conception architecturale dans un contexte specifiwque. Analyser le site et de decrire les priorites caracteristiques du site: les contraintes et opportunités.	10	-
Not Available	Die Turkiseh Architektur Vor Undu Nach Dem Islam	Die entwicklung und veränderung und veränderung in der geschichte der Türkish Kunts	3	-
Not Available	Architecture and Timber Material	Understanding the importance of natural timber material through historical periods in the architectural profession.	3	-
Not Available	Studio-VI (Architectural Design)	Get information about multifunctional buildings. Get information about vertical and horizontal circulation. Donate basic information and skills about designing buildings like hotels, shopping malls, etc.	12	-
Not Available	Solar Architecture	Get information about the relation of architecture and energy.. Get information about the usage of renewable energy surces in architecture. Donate basic information and skills about the consideration of solar energy on building design.	3	-
Not Available	Architectural Readings in Cinema	Architecture comprises not only technical but also fine art fields. As an art issue architecture has common language with the other brunch of art.	3	-

FACULTY OF ENGINEERING AND NATURAL SCIENCES

DEPARTMENT OF CIVIL ENGINEERING

CODE	COURSE	DESCRIPTION	CREDIT	PROFESSOR
Not Available	Application of Hydraulic Engineering Design	This course that the basis of computation and sizing of Ogee Spilway, physical and numerical modelling of this structure and evaluation of the results.	12	Dr. Alpaslan YARAR
Not Available	Application of Structural Engineering Design	This course that the basis of analysis and design of Reinforced Concrete Structures and modelling of this structure and evaluation of the results.	12	Prof. Dr. S. Bahadır YÜKSEL
Not Available	Non-Linear Analysis of Structures	This course covers the calculation of member forces at collapse and Non-linear analysis of structures	4	Prof. Dr. S. Bahadır YÜKSEL
Not Available	Seismic Assessment of Reinforced Concrete Buildings	This course covers the methods used for the seismic assessment of reinforced concrete buildings	4	Prof. Dr. S. Bahadır YÜKSEL

FACULTY OF ENGINEERING AND NATURAL SCIENCES

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CODE	COURSE	SEMESTER	CREDIT	PROFESSOR
Not Available	Electrotechnics	AUTUMN (1st Semester)	5	-
Not Available	Electrical and Electronics Measurements	SPRING (2nd Semester)	5	-
Not Available	Computer Programming-I	SPRING (2nd Semester)	5	-
Not Available	Circuit Analysis-I	AUTUMN (3rd Semester)	5	-
Not Available	Electronics-I	AUTUMN (3rd Semester)	5	-
Not Available	Logic Circuits	AUTUMN (3rd Semester)	5	-
Not Available	Differantial Equations	AUTUMN (3rd Semester)	5	-
Not Available	Computer Programming-II	AUTUMN (3rd Semester)	3	-
Not Available	Circuit Analysis-II	SPRING (4th Semester)	5	-
Not Available	Electronics-II	SPRING (4th Semester)	5	-
Not Available	Logic Circuit Design	SPRING (4th Semester)	5	-

Not Available	Probability and Statistics	SPRING (4th Semester)	5	-
Not Available	Electrical Machinery I	AUTUMN (5th Semester)	5	-
Not Available	Automatic Control I	AUTUMN (5th Semester)	5	-
Not Available	Mikrocontrollers	AUTUMN (5th Semester)	5	-
Not Available	Electronics Circuit Design	AUTUMN (5th Semester)	5	-

FACULTY OF ENGINEERING AND NATURAL SCIENCES

DEPARTMENT OF GEOLOGY

CODE	COURSE	COURSE PLAN	CREDIT	PROFESSOR
Not Available	Stratigraphy and Sedimentology	Introduction, Sedimentary particules, Sedimentary processes, Sedimentary structure, Paleocurrent analysis, Sedimentary environments, Sedimentary tectonics, Fundamental laws of geology, Stratigraphical contacts, Lithostratigraphy, Biostratigraphy, Chronostratigraphy, Magnetic Stratigraphy, methods of dating rocks, Seismic stratigraphy, Sequence stratigraphy	5	Prof. Dr. Hükümü ORHAN
Not Available	Optical Mineralogy	Introduction, properties of light, Interference , optic retardation, Light and polarized light, Uniaxial and biaxial indicatrix, Optic activity, polarised light microscopy, Accessory plates, Form, shape, colour, pleochroism, The Becke lines, relief, Measurement of length and surface in minerals, Isotropy, anisotropy, Extinction angles, elongation, Conoscopic studies, Conoscopic studies, Optical orientation, relationship of optical properties to crystal chemistry.	3	Prof. Dr. Kerim KOÇAK
Not Available	Igneous Petrography	Introduction igneous rocks and magmas, petrography of plutonic, subvolcanic and volcanic rocks, Appearance and	5	Prof. Dr. Kerim KOÇAK

		distribution of igneous rocks,Chemical and mineralogical properties of igneous rocks,Igneous textures,Classification of igneous rocks,Diagramatic representation of mineral parageneses,Magmatic crystallization and differentiation,Granite and granitic rocks, general emplacement, modal compositions, geochemical and petrogenetic acteristics,Andesite and andesitic rocks, their emplacement, modal compositions, and geochemical and petrogenetic acteristics,Basalt and related rocks, their emplacement, modal compositions, and geochemical and petrogenetic acteristics,Trachyte-syenite and associated rocks, their emplacement, modal compositions, geochemical and petrogenetic acteristics,Dacite-rhyolite and associated rocks, overall emplacement, modal compositions, geochemical and petrogenetic acteristics,Ultramafic, kimberlites and carbonatites,		
Not Available	Tufa and Travertine Sedimentology	Introduction,Travertine and Tufa,Factors controlling the precipitation of tufa and travertine,Characteristics of travertine and tufa,Travertine and tufa fabrics,Depositional environments of tufa and travertine,Facies types in travertine and tufa,Mineralogy and element composition of travertine and tufa,Chemistry of travertine and tufa formation water,interpretation of Stable isotop content of tufa and travertine,The role of organism in formation of travertine and tufa,The methods of dating travertine,Estimating paleoclimate with travertine and tufa, General overview	5	Prof. Dr. Hükümü ORHAN
Not Available	Environmental Geology	Introduction, Philosophy and fundamental principals, Earth material and processes,Earth material and processes,Minerals and rocks,Minerals and rocks,earthquake and	5	Prof. Dr. Kerim KOÇAK

		environment,energy and environment,water pollution,waste disposal,landslides and their effects on the environment,Decision of land use and decison making for city planning,Air pollution,General Review		
Not Available	Facies Determination and Interpretation	Introduction, definition of sedimentary basin, sedimentary environment and sedimentary facies, criteria for facies description, rules for coding facies, rules for describing facies associations, correlation and interpretation of facies and facies associations	5	Prof. Dr. Hükmü ORHAN
Not Available	Sedimentary Rocks		4	Prof. Dr. Hükmü ORHAN
Not Available	Petrography of Metamorphic Rocks	Introduction, the principal factors in metamorfism,Describibng and naming metamorphic rocks,Metamorphic textures and microscopic structures,Metamorohic crystallisation,Mineral orientations,Metamorphic reactions,Diagramatic representation of mineral parageneses,Metamorphic facies,Contact metamorphism,Dynamic metamorphism,Regional Metamorphism,Regional Metamorphism,Metasomatism and anatexi,Global tectonic and metamorphism	4	Prof. Dr. Kerim KOÇAK
Not Available	Seminary	Inroduction,The topic selection,To learn Endnote software for Literature research,Literature research,Literature research,To learn how to choose, read understand papers,To prepare a project and a report,To learn Endnote software for reference in the report,To use Endnote software for reference in the report,In Microsoftword, to learn Heading style,In Microsoftword, to learn Table and Figure Captions and cross-	4	Prof. Dr. H. KURT Prof. Dr. Hükmü ORHAN Prof. Dr. Kerim KOÇAK

		application,In Microsoftword, to prepare Contents and index,Preperation of a presentation by Powerpoint software,Preperation of a presentation by Powerpoint software.		
Not Available	Design in Geological Engineering-1	<p>Preperation of a geological map of an area by Corel-Draw software,Preperation of a geologic stratigraphic columnar section of an area by Corel-Draw software,Preperation of a geologic cross-section from a geologic map by Corel-Draw software,Evaluation of joints and strike, and dip of beddings in a region by Fieldmoveclino software, Results of the bulk-rock chemical analyses, assumed to be belong to an area, are going to be evaluated by "Gcdkit " software, Therefore, the nomenclature and geotectonic setting of the samples are going to be determined, and some geochemical diagrams with contours and 3D (three-sized) diagrams are going to be plotted, Results of the bulk-rock chemical analyses, assumed to be belong to an area, are going to be evaluated by "Gcdkit " software. Therefore, the nomenclature and geotectonic setting of the samples are going to be determined, and some geochemical diagrams with contours and 3D (three-sized) diagrams are going to be plotted.Results of the bulk-rock chemical analyses, assumed to be belong to an area, are going to be evaluated by "Gcdkit " software.Therefore, the nomenclature and geotectonic setting of the samples are going to be determined, and some geochemical diagrams with contours and 3D (three-sized) diagrams are going to be plotted, google scetchup and pictures obtained by Fieldmoveclino software into the Google earth. Drawing a cross section on Google Earth, Preperation of a poster in the</p>	3	Prof. Dr. Kerim KOÇAK

		light of the knowledge obtained so far by Powerpoint software, Preparation of a presentation in the light of the knowledge obtained so far by Powerpoint software By application of all softwares taught, preparation of a poster for various geological problems of an area to improve design capabilities/features of the students		
Not Available	Low Temperature Geochemistry	Basic terms in chemistry, Chemical bonds, ionic ratio and crystals, Goldschmidt's rules of substitution, Chemical reactions and equilibria, Law's of Thermodynamics, Mineral stability diagrams, Solubility diagrams, Eh-Ph diagrams, Rate of chemical reactions, Stability limits of geological materias, Applications of geochemistry to the geological problems	5	Prof. Dr. Hükümü ORHAN
	Design in Geological Engineering-2	Inroduction and chosen the field for mapping, Literature survey, Making a Geological map of the land, Laboratory work, Office to study and prepare a report, Office to study and prepare a report	6	Prof. Dr. H. KURT Prof. Dr. Hükümü ORHAN Prof. Dr. Kerim KOÇAK
FACULTY OF ENGINEERING AND NATURAL SCIENCES				
DEPARTMENT OF GEOMATICS				
CODE	COURSE	SEMESTER	CREDIT	PROFESSOR
Not Available	Coordinate Systems			Prof. Dr. Ekrem TUŞAT
Not Available	Satellite Geodesy			Prof. Dr. Ekrem TUŞAT
Not Available	Geographic Information System			Prof. Dr. Fatih İŞCAN

	Application for Geomatics Engineering			
Not Available	Remote Sensing			Prof. Dr. Hakan KARABÖRK
Not Available	Remote Sensing Applications in Spatial Analysis			Prof. Dr. Hakan KARABÖRK
Not Available	The C Programming			Prof. Dr. İ. Öztuğ BİLDİRİCİ
Not Available	Statistics			Prof. Dr. İ. Öztuğ BİLDİRİCİ
Not Available	DNSS and RTK CORS Networks			Prof. Dr. Muzaffer KAHVECİ
Not Available	Navigation by Satellites			Prof. Dr. Muzaffer KAHVECİ
Not Available	Numerical Analysis for Geomatics Engineering			Doç. Dr. Serkan DOĞANALP

FACULTY OF ENGINEERING AND NATURAL SCIENCES

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

CODE	COURSE	CONTENT	CREDIT	PROFESSOR
Not Available	Failure of Materials	The aim of this course is to teach students about failure mechanism of materials	4	-
Not Available	Mechanical Metallurgy	Basic concepts related to mechanical properties of materials, and Standard test method for determinina the mechanical properties of materials teach.	3	-
Not Available	Materials Science 1	Explain the importance of material science in terms of engineering applications. Teach the basic structure of enaineerina materials	6	-
Not Available	Materials Science 2	Explain the importance of material science in terms of engineering applications. Teach	6	-

		the basic structure of engineering materials		
Not Available	Kinetics of Materials	The objective of this course is to unify phenomenological and atomistic kinetic processes in materials	4	-
Not Available	Phase Equilibria	Explain the importance of material science in terms of engineering applications. Teach the basic structure of engineering materials	5	-
Not Available	Dev. of Reading & Writing Skills	The aim of this course is to provide students a better understanding of the knowledge, science, philosophy of science, methods of the scientific research.	4	-
Not Available	Fundamentals of Nanotechnology	Teaching of the new era materials, nano concept and introduction future nano scale devices, robot and systems are aimed	4	-
Not Available	Crystallography	To learn theories and applications of crystallography for engineering application	4	-
Not Available	Mechanical Properties of Materials (Graduate Studies)	In design, it is very important to know the mechanical behavior of the material under mechanical loading. Especially loading that causes failure and deformation and the fracture properties of the material are prerequisites in proper design. It is aimed that detailed knowledge of structure-property relationships will be gained by the students.	7.5	-
Not Available	Degradation of Engineerin Materials (Graduate Studies)	Recognize engineering materials with the degradation of engineering materials, To give functional information to the material surface and to protection, Having knowledge about new technologies and protection methods about degradation of engineering materials,	7.5	-
Not Available	Advanced Phase Equilibria (Graduate Studies)	The objective of this course is to develop an understanding of the thermodynamic driving force for phase transformations. The course attempts to indicate the important role of free energy vs. temperature relationships	7.5	-

		in unary and multi-component phase diagrams.		
Not Available	Principles of Scientific Research and Academic Skills (Graduate Studies)	This course includes researching and publishing different approaches in research methods, commonly used research techniques, research steps, data collection and analysis, interpretation, principles of writing a report / thesis, bibliography and - footnote displaying techniques. The aim of this course is to provide students with the ability to design and report a high quality scientific research and gain the ability to produce original information in this way.	7.5	-
Not Available	Materials Microprocessing and Colloidal Chemistry (Graduate Studies)	To learn theories and applications of production of engineering colloidal systems	7.5	-

FACULTY OF ENGINEERING AND NATURAL SCIENCES

DEPARTMENT OF MINING ENGINEERING

CODE	COURSE	COURSE PLAN	CREDIT	PROFESSOR
Not Available	Underground Mining Methods	Introduction mining methods classification Long wall mining methods Shortwall mining methods Mining methods pillars (pillar methods) Room and pillar type methods (room methods) Block extraction methods Mid term examination Block extraction methods (block caving) Block extraction methods (block caving)	5	-

		<p>Sublevel caving mining methods</p> <p>Sublevel stoping methods</p> <p>Mining methods which are not used anymore</p> <p>Deep of the mine (decisionabout) to continue underground activity</p> <p>Hydraulic mining methods and its evaluation</p>		
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FACULTY OF ENGINEERING AND NATURAL SCIENCES

DEPARTMENT OF MECHANICAL ENGINEERING

CODE	COURSE	SEMESTER	CREDIT	PROFESSOR
Not Available	Calculus I	Semester 1	6	-
Not Available	Physics I	Semester 1	6	-
Not Available	Introduction to Mechanical Engineering	Semester 1	4	-
Not Available	Computer Aided Technical Drawing I	Semester 1	5	-
Not Available	Computer Aided Technical Drawing II	Semester 2	5	-
Not Available	Statics	Semester 2	5	-
Not Available	Calculus II	Semester 2	6	-
Not Available	Physics II	Semester 2	5	-
Not Available	Chemistry	Semester 2	5	-
Not Available	Dynamics	Semester 3	5	-
Not Available	Differential Equations	Semester 3	4	-
Not Available	Material Science I	Semester 3	3	-
Not Available	Thermodynamics I	Semester 3	5	-
Not Available	Strength of Materials	Semester 4	5	-
Not Available	Manufacturing Technologies	Semester 4	4	-
Not Available	Material Science II	Semester 4	6	-

Not Available	Technical English	Semester 4	2	-
Not Available	Dynamic of Machinery	Semester 5	4	-
Not Available	Machine Elements I	Semester 5	5	-
Not Available	Heat Transfer	Semester 5	4	-
Not Available	System Dynamics	Semester 6	3	-
Not Available	Machine Elements II	Semester 6	5	-
Not Available	Fluid Mechanics II	Semester 6	3	-
Not Available	Engineering measurements	Semester 6	4	-
Not Available	Mechanical Engineering Design I	Semester 7	5	-
Not Available	Control Systems	Semester 7	3	-
Not Available	Engineering Design	Semester 7	4	-
Not Available	Technology & Innovation Management	Semester 7	5	-
Not Available	Thermal Environmental Engineering	Semester 7	5	-
Not Available	Introduction to Finite Elements Method	Semester 7	5	-
Not Available	Mechanical Engineering Design II	Semester 8	13	-
Not Available	Engineering Economics	Semester 8	3	-
Not Available	Air Conditioning System Design	Semester 8	5	-
Not Available	Introduction to Composite Materials	Semester 8	5	-
Not Available	Renewable Energy Systems	Semester 8	5	-
Not Available	Mechatronic Systems	Semester 8	5	-

Please contact to our office for further details via erasmus@ktun.edu.tr