

31.07.2025 tarih ve 868 Sayılı Eğitim Komisyonu Kararı Eki-2-A

TABLO 1
ÖĞRETİM PROGRAMI TABLOSU
HACETTEPE ÜNİVERSİTESİ MÜHENDİSLİK FAKÜLTESİ
JEOLJİ MÜHENDİSLİĞİ BÖLÜMÜ (Jeoloji Mühendisliği Öğretim Programı)

GÜZ						BAHAR					
	T	P	K	AKT S	Şube sayısı		T	P	K	AKT S	Şube sayısı
1.YARIYIL						2.YARIYIL					
ZORUNLU DERSLER LİSTESİ						ZORUNLU DERSLER LİSTESİ					
FİZ137 FİZİK I	4	0	4	5		FİZ117 GENEL FİZİK LABORATUVARI	0	3	1	2	
İNG127 TEMEL İNGİLİZCE I	3	0	3	3		FİZ138 FİZİK II	4	0	4	5	
JEO153 FİZİKSEL JEOLJİ I	2	1	3	4	4	İNG128 TEMEL İNGİLİZCE II	3	0	3	3	
KİM109 KİMYA I	4	0	4	5		JEO152 FİZİKSEL JEOLJİ II	3	3	4	6	4
KİM119 KİMYA LAB.I	0	3	1	2		KİM110 KİMYA II	4	0	4	5	
MAT107 MATEMATİK I	4	0	4	5		MAT108 MATEMATİK II	4	0	4	5	
TKD103 TÜRK DİLİ I	2	0	2	2		TKD104 TÜRK DİLİ II	2	0	2	2	
JEO154 BİLGİSAYAR PROGRAMLAMA	3	0	3	3	4	BEB650 TEMEL BİLGİ VE İLETİŞİM TEKN. KULLANIMI	0	2	1	2	
JEO 156 JEOLJİ MÜHENDİSLİĞİNE GİRİŞ	1	0	1	1	2						

TOPLAM ZORUNLU DERS	23	4	25	30		TOPLAM ZORUNLU DERS	20	8	23	30	
SEÇMELİ DERSLER LİSTESİ						SEÇMELİ DERSLER LİSTESİ					
TOPLAM SEÇMELİ DERS			0	0		TOPLAM SEÇMELİ DERS			0	0	
YARIYIL TOPLAM			25	30		YARIYIL TOPLAM			23	30	

3.YARIYIL						4.YARIYIL					
ZORUNLU DERSLER LİSTESİ						ZORUNLU DERSLER LİSTESİ					
AİT203 ATA. İLK. VE İNK. TAR. I	2	0	2	2		AİT204 ATA. İLK. VE İNK.TAR II	2	0	2	2	
JEO261 PALEONTOLOJİ	2	2	3	5	4	JEO264 STRAT-SEDİMANTOLOJİ	3	2	4	5	4
JEO263 YAPISAL JEOLJİ	3	2	4	5	4	JEO266 PETROGRAFİ	3	2	4	6	4
JEO265 MİNERALOJİ	3	2	4	6	4	JEO270 STATİK VE MUKAVEMET	3	0	3	5	4
JEO267 TAŞINIM OLAYLARI	2	0	2	3	3	MAT238 MÜHENDİSLİK MAT.	4	0	4	5	
JEO269 JEOİSTATİSTİK	3	0	3	4	3						

TOPLAM ZORUNLU DERS	15	6	18	25		TOPLAM ZORUNLU DERS	15	4	17	23	
SEÇMELİ DERSLER LİSTESİ						SEÇMELİ DERSLER LİSTESİ					
TOPLAM SEÇMELİ DERS			3	5		TOPLAM SEÇMELİ DERS			4	7	
YARIYIL TOPLAM			21	30		YARIYIL TOPLAM			21	30	

GENEL TOPLAM			166	240	
ZORUNLU DERS KREDİSİ			133	178	
SEÇMELİ DERS KREDİSİ			33	62	
ZORUNLU DERS KREDİ YÜZDESİ				74%	
SEÇMELİ DERS KREDİ YÜZDESİ				26%	

Seçmeli Dersler Listesi (TABLO 1'in devamı)

GÜZ						BAHAR					
	T	P	K	AKT S	Şube sayısı		T	P	K	AKT S	Şube sayısı
JEO447 TIBBİ JEOLOJİ	2	0	2	4	2	JEO464 YERALTİ JEOLOJİSİ	1	2	2	5	2
JEO449 BİLİMSEL ANLATIM İLKELERİ	2	0	2	4	2	JEO468 SEDİMANTER PETROGRAFI	1	2	2	5	2
JEO459 AFET YÖNETİMİ	2	0	2	4	2	JEO470 OPTİK MİNERALOGİ	2	2	3	5	2
JEO465 FOTOJEOLOJİ	1	2	2	4	2	JEO472 METAMORFİK PETROGRAFI	2	2	3	6	2
JEO467 JEOMORFOLOJİ	2	0	2	4	2	JEO474 ENDÜST. HAMMADDELER	2	0	2	4	2
JEO469 JEOTEKNİK VERİ TOP. DEĞER.	3	0	3	5	2	JEO476 METALİK MADEN YATAKLARI	3	0	3	5	2
JEO473 MAGMATİK PETROGRAFI	2	2	3	6	2	JEO480 PETROL JEOLOJİSİ	3	0	3	5	2
JEO475 KRİSTALOGRAFI	2	2	3	5	2	JEO482 UZAKTAN ALGILAMA	1	3	2	6	2
JEO477 MADEN YAT. DEĞERLENDİRME	1	3	2	5	2	JEO484 ANALİZ METOTLARI VE JEOKİMYASAL PROSPEKSİYON	2	2	3	6	2
JEO479 KÖMÜR JEOLOJİSİ	2	0	2	4	2	JEO485 TOPRAK MEKANİĞİ LABORATUVAR YÖNTEMLERİ	1	2	2	5	2
JEO481 MÜHENDİSLİK EKONOMİSİ	3	0	3	5	2	JEO486 TEKNİK ÇİZİM VE TASARIM	1	2	2	5	2
JEO483 SONDAJ TEKNİĞİ	2	0	2	3	2	JEO488 ÖLÇME BİLGİSİ	1	2	2	5	2
JEO489 MÜHENDİSLİK TASARIMI	2	0	2	4	2	JEO490 ÇEVRESEL JEOLOJİ	2	0	2	3	2
JEO493 KAYA MEKANİĞİ LABORATUVAR YÖNTEMLERİ	1	2	2	5	2	JEO494 DOĞAL AFETLER	3	0	3	4	2
JEO495 YERBİLİMLERİNDE RADYOMETRİK YAŞ TAYİNİ YÖNTEMLERİ	3	0	3	5	2	*JEO498 JEO. COĞR. BİL. SİST. VE UZAKT.	2	2	3	6	2
JEO497 DOĞAL YAPI MALZEMELERİ	2	2	3	5	2	HİD428 SU KALİTESİ VE KONTROLÜ	3	0	3	5	2
JEO499 JEOLOJİK HARİTALAMA TEKNİKLERİ VE UYGULAMALARI	2	2	3	5	2	HİD430 ÇEVRESEL ETKİ DEĞERLENDİRMESİ	2	0	2	5	2
HİD427 ÇEVRE SORUNLARI	2	0	2	5	2	HİD432 HİDROJEOLOJİDE BİLGİSAYAR UYGULAMALARI	2	2	3	6	2
HİD429 KARST HİDROJEOLOJİSİ	3	0	3	5	2	HİD434 YERALTISUYU TAŞINIM MODELLERİ	2	2	3	6	2
HİD431 AKİFER TESTLERİ	2	1	2	5	2	HİD438 ÇEVRESEL HİDROJEOLOJİ	3	0	3	5	2
HİD433 HİDROJEOLOJİK MODELLER	2	2	3	6	2	HİD440 SINIRAŞAN SULAR YÖNETİMİ	2	0	2	5	2
HİD435 COĞRAFI BİLGİ SİSTEML.GİRİŞ	2	2	3	6	2	HİD436 HİDROJEOLOJİ'DE CBS UYGULAMALARI	2	2	3	6	2
HİD437 SÜRDÜRÜLEBİLİR SU KAYNAKLARI YÖNETİMİ	3	0	3	5	2	HİD442 MADEN HİDROJEOLOJİSİ	2	0	2	5	2

HİD439 EKOHİDROLOJİ	2	0	2	5	2	HİD444 JEOTERMAL ENERJİ	2	0	2	5	2
HİD441 İZOTOP HİDROLOJİSİ	2	0	2	5	2	HİD446 AKİFER DUYARLILIK HARİTALARI	1	2	2	5	2
HİD443 SICAK VE MİNERALLİ SULAR	2	0	2	5	2	HİD448 HİDROJEOLÖJİK MODELLEME UYGULAMALARI	2	2	3	6	2
HİD485 SU YAPILARI	2	0	2	3	2	HİD450 HİDROJEOLÖJİDE SAHA UYGULAMALARI	1	3	2	6	2
HİD495 HİDROJEOLÖJİDE JEOTELEKTRİKSEL YÖNTEMLER	1	2	2	3	2						
HİD445 YERALTISUYU KORUMA ALANLARI	2	0	2	5	2						
HİD447 SULAK ALANLAR HİDROJEOLÖJİSİ	2	0	2	5	2						
HİD449 HİDROJEOLÖJİDE YAPAY ZEKA VE DERİN ÖĞRENME TEKNİKLERİ	2	2	3	6	2						

***: Ders BAHAR ve GÜZ dönemlerinin her ikisinde de açılır.**

Mezuniyet Koşulları

- H.Ü. Ön lisans, Lisans Eğitim-Öğretim ve Sınav Yönetmeliğinin ilgili maddelerinde lisans programından mezuniyet için belirtilen şartları sağlaması gereklidir.
- Ortak zorunlu dersler dahil olmak üzere tabi olduğu lisans programındaki tüm zorunlu dersleri başarmış olmalıdır.
- 3 (üç) alan dışı ve diğerleri alan içi seçmeli dersler olmak üzere en az 240 AKTS kazanılmış olmalıdır.

31.07.2025 tarih ve 868 Sayılı Eğitim Komisyonu Kararı Eki-2-B

TABLE 1 HACETTEPE UNIVERSITY FACULTY OF ENGINEERING GEOLOGICAL ENGINEERING DEPARTMENT (Geological Engineering Program)											
FALL						SPRING					
	T	P	C	ECTS	# of Sections		T	P	C	ECTS	# of Sections
First Semester						Second Semester					
COMPULSORY COURSES						COMPULSORY COURSES					
FİZ137 PHYSICS I	4	0	4	5		FİZ117 GENERAL PHYSICS LABORATORY	0	3	1	2	
İNG127 BASIC ENGLISH I	3	0	3	3		FİZ138 PHYSICS II	4	0	4	5	
JEO153 PHYSICAL GEOLOGY I	2	1	3	4	4	İNG128 BASIC ENGLISH II	3	0	3	3	
KİM109 CHEMISTRY I	4	0	4	5		JEO152 PHYSICAL GEOLOGY II	3	3	4	6	4
KİM119 CHEMISTRY LABORATORY I	0	3	1	2		KİM110 CHEMISTRY II	4	0	4	5	
MAT107 CALCULUS I	4	0	4	5		MAT108 CALCULUS II	4	0	4	5	
TKD103 TURKISH LANGUAGE I	2	0	2	2		TKD104 TURKISH LANGUAGE II	2	0	2	2	
JEO154 COMPUTER PROGRAMMING	3	0	3	3	4	BEB650 BASIC INFORMATION AND COMMUNICATION TECH.	0	2	1	2	
JEO 156 INTRODUCTION TO GEOLOGICAL ENGINEERING	1	0	1	1	2						

TOTAL OF COMPULSORY COURSES	23	4	25	30		TOTAL OF COMPULSORY COURSES	20	8	23	30	
ELECTIVE COURSES						ELECTIVE COURSES					
TOTAL NUMBER OF ELECTIVE COURSES			0	0		TOTAL NUMBER OF ELECTIVE COURSES			0	0	
SUM OF CREDITS IN SEMESTER			25	30		SUM OF CREDITS IN SEMESTER			23	30	

THIRD SEMESTER						FOURTH SEMESTER					
COMPULSORY COURSES						COMPULSORY COURSES					
AİT203 ATATÜRK'S PRINCIPLES AND HISTORY OF HIS REFORMS I	2	0	2	2		AİT204 ATATÜRK'S PRINCIPLES AND HISTORY OF HIS REFORMS II	2	0	2	2	
JEO261 PALEONTOLOGY	2	2	3	5	4	JEO264 STRATIGRAPHY-SEDIMENTOLOGY	3	2	4	5	4
JEO263 STRUCTURAL GEOLOGY	3	2	4	5	4	JEO266 PETROGRAPHY	3	2	4	6	4
JEO265 MINERALOGY	3	2	4	6	4	JEO270 STATIC AND STRENGTH	3	0	3	5	4
JEO267 TRANSPORT PHENOMENA	2	0	2	3	3	MAT238 ENGINEERING MATHEMATICS	4	0	4	5	
JEO269 GEOSTATISTICS	3	0	3	4	3						

TOTAL OF COMPULSORY COURSES	15	6	18	25		TOTAL OF COMPULSORY COURSES	15	4	17	23	
ELECTIVE COURSES						ELECTIVE COURSES					
TOTAL NUMBER OF ELECTIVE COURSES			3	5		TOTAL NUMBER OF ELECTIVE COURSES			4	7	
SUM OF CREDITS IN SEMESTER			21	30		SUM OF CREDITS IN SEMESTER			21	30	

FIFTH SEMESTER						SIXTH SEMESTER					
COMPULSORY COURSES						COMPULSORY COURSES					
HİD355 HYDROGEOLOGY	2	2	3	4	3	JEO302 GEOLOGICAL MAPPING	2	6	4	5	10
JEO355 GEOCHEMICAL THERMODYNAMICS	3	0	3	3	3	JEO346 INTERNSHIP (30 work days)	0	8	4	6	45
JEO357 ROCK MECHANICS	2	1	2	4	3	JEO354 GEOCHEMISTRY	2	0	2	3	3
JEO359 FIELD GEOLOGY	2	6	4	5	4	JEO356 APPLIED GEOPHYSICS	2	2	3	4	3
JEO361 VOCATIONAL ENGLISH-I	2	0	2	2	3	JEO358 SOIL MECHANICS	2	1	2	4	4
MUH103 OCCUPATIONAL HEALTH AND SAFETY I	1	0	1	1	30	JEO362 VOCATIONAL ENGLISH-II	2	0	2	2	3
						MUH 104 OCCUPATIONAL HEALTH AND SAFETY II	1	0	1	1	30

TOTAL OF COMPULSORY COURSES	12	9	15	19		TOTAL OF COMPULSORY COURSES	11	16	18	25	
ELECTIVE COURSES						ELECTIVE COURSES					
TOTAL NUMBER OF ELECTIVE COURSES			6	11		TOTAL NUMBER OF ELECTIVE COURSES			3	5	
SUM OF CREDITS IN SEMESTER			21	30		SUM OF CREDITS IN SEMESTER			21	30	

SEVENTH SEMESTER						EIGHTH SEMESTER					
COMPULSORY COURSES						COMPULSORY COURSES					
JEO451 ORE DEPOSITS	3	0	3	5	3	JEO452 ENGINEERING GEOLOGY	3	0	3	5	3
JEO453 HISTORICAL GEOLOGY	2	0	2	4	3	JEO454 GEOLOGY OF TURKEY	2	0	2	4	3
JEO455 PROJECT DEVELOPMENT AND DESIGN I	0	4	2	2	45	JEO418 PROFESSIONAL LEGISLTATION AND ETHICS	2	0	2	3	2
*MUH401 MULTI DISCIPLINED PROJECT WORK	0	2	1	1	13	JEO456 PROJECT DEVELOPMENT AND DESIGN II	0	4	2	2	45

TOTAL OF COMPULSORY COURSES	5	6	8	12		TOTAL OF COMPULSORY COURSES	7	4	9	14		
ELECTIVE COURSES						ELECTIVE COURSES						
TOTAL NUMBER OF ELECTIVE COURSES			9	18		TOTAL NUMBER OF ELECTIVE COURSES			8	16		
SUM OF CREDITS IN SEMESTER			17	30		SUM OF CREDITS IN SEMESTER			17	30		
GRAND SUM									166	240		
SUM OF CREDITS OF COMPULSORY COURSES									133	178		
SUM OF CREDITS OF ELECTIVE COURSES									33	62		
CREDIT PERCENTAGE OF COMPULSORY COURSES											74%	
CREDIT PERCENTAGE OF ELECTIVE COURSES											26%	

TECHNICAL ELECTIVE COURSES (TABLE 1 Cont'd)

FALL						SPRING					
	T	P	C	ECTS	# of Sections		T	P	C	ECTS	# of Sections
JEO447 MEDICAL GEOLOGY	2	0	2	4	2	JEO464 SUBSURFACE GEOLOGY	1	2	2	5	2
JEO449 PRINCIPALS OF SCIENTIFIC PRESENTATION	2	0	2	4	2	JEO468 SEDIMENTARY PETROGRAPHY	1	2	2	5	2
JEO459 DISASTER MANAGEMENT	2	0	2	4	2	JEO470 OPTICAL MINERALOGY	2	2	3	5	2
JEO465 PHOTOGEOLOGY	1	2	2	4	2	JEO472 METAMORPHIC PETROGRAPHY	2	2	3	6	2
JEO467 GEOMORPHOLOGY	2	0	2	4	2	JEO474 INDUSTRIAL RAW MATERIALS	2	0	2	4	2
JEO469 GEOTECHNICAL DATA COLL. AND EVALUATION TECHNIQUES	3	0	3	5	2	JEO476 METALLIC ORE DEPOSITITS	3	0	3	5	2
JEO473 IGNEOUS PETROGRAPHY	2	2	3	6	2	JEO480 PETROLEUM GEOLOGY	3	0	3	5	2
JEO475 CRYSTALLOGRAPHY	2	2	3	5	2	JEO482 REMOTE SENSING	1	3	2	6	2
JEO477 ORE DEPOSITS EVALUATION	1	3	2	5	2	JEO484 METHODS OF ANALYSES AND GEOCHEMICAL PROSPECTION	2	2	3	6	2
JEO479 COAL GEOLOGY	2	0	2	4	2	JEO485 SOIL MECHANICS LABORATORY METHODS	1	2	2	5	2
JEO481 ENGINEERING ECONOMY	3	0	3	5	2	JEO486 TECHNICAL DRAWING AND DESIGN	1	2	2	5	2
JEO483 DRILLING TECHNIQUES	2	0	2	3	2	JEO488 SURVEYING	1	2	2	5	2
JEO489 ENGINEERING DESIGN	2	0	2	4	2	JEO490 ENVIRONMENTAL GEOLOGY	2	0	2	3	2
JEO493 ROCK MECHANICS LABORATORY METHODS	1	2	2	5	2	JEO494 NATURAL CATASTROPHES	3	0	3	4	2
JEO495 METHODS OF RADIOMETRIC DATING IN EARTH SCIENCES	3	0	3	5	2	*JEO498 GIS AND REMOTE SENSING IN GEOLOGY	2	2	3	6	2
JEO497 NATURAL CONSTRUCTION MATERIALS	2	2	3	5	2	HİD428 WATER QUALITY AND CONTROL	3	0	3	5	2
JEO499 GEOLOGICAL MAPPING TECH. AND APPLICATIONS	2	2	3	5	2	HİD430 ENVIRONMENTAL IMPACT ASSESSMENT	2	0	2	5	2
JEO499 GEOLOGICAL MAPPING TECH. AND APPLICATIONS	2	2	3	5	2	HİD432 COMPUTER APPLICATIONS IN HYDROGEOLOGY	2	2	3	6	2
HİD427 ENVIRONMENTAL PROBLEMS	2	0	2	5	2	HİD434 GROUNDWATER TRANSPORT MODELS	2	2	3	6	2
HİD429 KARST HYDROGEOLOGY	3	0	3	5	2	HİD438 ENVIRONMENTAL HYDROGEOLOGY	3	0	3	5	2

HİD431 HYDRAULIC TESTS OF AQUIFERS	2	1	2	5	2	HİD440 MANAGEMENT OF TRANSBOUNDARY WATERS	2	0	2	5	2
HİD433 HYDROGEOLOGICAL MODELS	2	2	3	6	2	HİD436 GIS APPLICATIONS IN HYDROGEOLOGY	2	2	3	6	2
HİD435 INTRODUCTION TO GIS	2	2	3	6	2	HİD442 MINE HYDROGEOLOGY	2	0	2	5	2
HİD437 SUSTAINABLE WATER RESOURCES MANAGEMENT	3	0	3	5	2	HİD444 GEOTHERMAL ENERGY	2	0	2	5	2
HİD439 ECOHYDROLOGY	2	0	2	5	2	HİD446 AQUIFER VULNERABILITY MAPS	1	2	2	5	2
HİD441 ISOTOPE HYDROLOGY	2	0	2	5	2	HİD448 HYDROGEOLOGICAL MODEL APPLICATIONS	2	2	3	6	2
HİD443 THERMAL AND MINERAL WATERS	2	0	2	5	2	HİD450 FIELD APPLICATIONS IN HYDROGEOLOGY	1	3	2	6	2
HİD485 HYDRAULIC STRUCTURES	2	0	2	3	2						
HİD495 GEOELECTRICAL METHODS IN HYDROGEOLOGY	1	2	2	3	2						
HİD445 GROUNDWATER PROTECTION AREAS	2	0	2	5	2						
HİD447 HYDROGEOLOGY OF WETLANDS	2	0	2	5	2						
HİD449 ARTIFICIAL INTELLIGENCE AND DEEP LEARNING TECHNIQUES IN HYDROGEOLOGY	2	2	3	6	2						

***: this course is offered in both FALL and SPRING semesters**

Graduation Requirements

- It is necessary to meet the conditions specified in the relevant requirements of HU Undergraduate Education and Examination Regulations for the undergraduate program.
- Must be successful in all compulsory courses of the undergraduate program to which he/she is subject, including common compulsory courses.
- At least 240 ECTS must be gathered, 3 (three) of which are out-of-field elective courses and the others are in-of-field electives.