## ABDULLAH GÜL UNIVERSITY / ABDULLAH GÜL ÜNİVERSİTESİ

# Civil Engineering Undergraduate Program / İnşaat Mühendisliği Lisans Programı

(For students who start their undergraduate education in Fall 2016 and later) (Lisans eğitimine 2016 Güz döneminden itibaren başlayan öğrenciler için)

	Freshman Year / FALL Semester – 1. SINIF GÜZ YARIYILI													
	Code	Course Name	Lec.	Lab	Credits	ECTS	Prerequisites							
	MATH 151	Calculus I	5	0	5	6								
	PHYS 101	Physics I	3	2	4	5								
	COMP 101	Art of Computing	3	2	4	6								
	GLB 101	AGU Ways	3	0	3	4								
	ENG 101	English I	4	0	4	4	BRIDGE***							
	CE 101	Civil Egineering Drawing	1	2	2	5								
EAR		Total	19	6	22	30								
1 <sup>st</sup> YEAR	Freshman Year / SPRING Semester - 1. SINIF BAHAR YARIYILI													
	Code	Course Name	Lec.	Lec. Lab Credits		ECTS	Prerequisites							
	MATH 152	Calculus II	5	0	5	6	MATH 151							
	PHYS 102	Physics II	3	2	4	5								
	CE 102	Exploring Profession	2	2	3	6								
	GLB XXX	Global Issues Elective I	3	0	3	4								
	CHEM 101	Chemistry for Engineers	3	2	4	5								
	ENG 102	English II	4	0	4	4	ENG 101							
		Total	20	5	23	30								
	Sophomore Year / FALL Semester - 2. SINIF GÜZ YARIYILI													
	Code	Course Name	Lec.	Lab	Credits	ECTS	Prerequisites							
	CE 221	Mechanics	4	0	4	6								
	ECON 222	Economics for Engineers	3	0	3	4								
	MATH 205	Differential Equations	4	0	4	5	MATH 152							
	CE 241	Materials Science	2	1	3	5								
	CE 262	Geology for Civil Engineering	3	0	3	4								
	GLB XXX	Global Issues Elective II	3	0	3	4	BRIDGE***							
	TURK 101	Turkish I	2	0	2	2								
EAR		Total	21	1	22	30								
2 <sup>nd</sup> YEAR	Sophomore Year / SPRING Semester - 2. SINIF BAHAR YARIYILI													
•	Code	Course Name	Lec.	Lab	Credits	ECTS	Prerequisites							
	CE 222	Strength of Materials	3	2	4	6	CE 221							
	MATH 203	Linear Algebra	3	0	3	5								
	CE 244	Materials of Construction	2	1	3	4								
	CE 272	Fluid Mechanics	3	0	3	5								
	CE 202	Numerical Methods for Engineers	3	0	3	4								
	GLB XXX	Global Issues Elective III	3	0	3	4	BRIDGE***							
	TURK 102	Turkish II	2	0	2	2								
		Total	19	3	21	30								

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		Junior Year / FALL Semester	- 3. SINIF G	ÜZ YARIYII										
	Code	Course Name	Lec.	Lab	Credits	ECTS	Prerequisites							
	CE 300	Summer Practice	0	0	0	4								
	MATH 301	Probability and Statistics	3	0	3	5	MATH 152							
	CE 371	Hydromechanics	3	1	4	5	CE 272							
	CE 363	Soil Mechanics	3	2	4	5								
	CE 383	Structural Analysis	4	0	4	5	CE 221							
	GLB XXX	Global Issues Elective IV	3	0	3	4	ENG 101							
	HIST 201	History of Modern Turkey I	2	0	2	2								
AR		Total	18	3	20	30								
rd YEAR	Junior Year / SPRING Semester - 3. SINIF BAHAR YARIYILI													
3	Code	Course Name	Lec.	Lab	Credits	ECTS	Prerequisite							
	CE 332	Construction Engineering and Management	3	0	3	5								
	CE 366	Foundation Engineering	3	1	4	5	CE 363							
	CE 374	Hydrology and Water Resources Engineering	4	0	4	5	CE 272							
	CE 382	Reinforced Concrete	3	0	3	5	CE 222							
	CE 352	Introduction to Transportation and Traffic Engineering	2	1	3	5								
	XXX	Nontechnical Elective				3								
	HIST 202	History of Modern Turkey II	2	0	2	2								
		Total				30								
	Senior Year / FALL Semester - 4. SINIF GÜZ YARIYILI													
	Code	Course Name	Lec.	Lab	Credits	ECTS	Prerequisites							
	CE 403	Capstone Design	2	2	3	7								
	CE 481	Fundamentals of Steel Design	3	2	4	6	CE 222							
		Technical Elective	3	0	3	4	*							
		Technical Elective	3	0	3	4	*							
æ		Technical Elective	3	0	3	4	*							
4 <sup>th</sup> YEAR		Technical Elective	3	0	3	4	*							
₽4	OHS 401	Occupational Health and Safety I	2	0	2	1								
		Total	19	4	21	30								
	Senior Year / SPRING Semester - 4. SINIF BAHAR YARIYILI													
	Code	Course Name	Lec.	Lab	Credits	ECTS	Prerequisites							
	CE 404	Workplace Experience	1	0	1	29								
	OHS 402	Occupational Health and Safety II	1	0	1	1								
		Total	2	0	2	30								

<sup>\*</sup> The prerequisites for technical elective courses are given in the table of related courses.

<sup>\*\*\*</sup>If you did not pass the Prep School directly, then you would take this course Bridge, which you have to pass to be able to take relevant GLB Courses.

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#### **Technical Electives**

(4 of these courses must be taken / Bu derslerden 4'ü alınmak zorundadır)

(+ OI tile:	se courses must be taken / Bu dersierden -			ZUIUII	uauii	
Code	Course Name	T (s/h)	U (s/h)	Credit	ECTS	Prerequisites
CE 431	Construction Project Management	3	0	3	4	-
CE 441	Materials for Sustainable Built Environment	3	0	3	4	
CE 442	Construction Waste Management	3	0	3	4	1
CE 444	The Natural and Built Environment	3	0	3	4	2
CE 445	Sustainable Concrete Technology	3	0	3	4	-
CE 446	Laboratory Tests on Civil Engineering Materials	3	0	3	4	T
CE 447	Admixtures for Concrete	3	0	3	4	ī
CE 448	Durability of Concrete	3	0	3	4	-
CE 451	Railway Engineering	3	0	3	4	-
CE 452	Railway Design	3	0	3	4	CE 451 Railway Engineering
CE 461	Foundation Engineering II	3	0	3	4	CE 366 Foundation Engineering
CE 462	Introduction to GIS	3	0	3	4	-
CE 463	Use of In-situ Tests in Geotechnical Engineering	3	0	3	4	CE 363 Soil Mechanics
CE 464	Ground Improvement	3	0	3	4	CE 363 Soil Mechanics CE 366 Foundation Engineering
CE 473	Sustainable Energy Resources	3	0	3	4	-
CE 474	Engineering for Sustainability	3	0	3	4	-
CE 475	Water and Wastewater Treatment Engineering	3	0	3	4	-
CE 476	Environmental Policy and Politics	3	0	3	4	-
CE 477	Design of Hydraulic Structures	3	0	3	4	CE 272 Fluid Mechanics, CE 371 Hydromechanics
CE 482	Computational Structural Analysis and Design	3	0	3	4	CE383 Structural Analysis
CE 484	A seismic Design of Structures	3	0	3	4	-
CE 485	Introduction to Earthquake Engineering	3	0	3	4	-
CE 486	Introduction to Structural Dynamics	3	0	3	4	MATH205 Differential Equations CE 383 Structural Analysis
CE 488	Introduction to Vibrating Systems	3	0	3	4	MATH 203 Linear Algebra, MATH 205 Differential Equations
CE 489	Matrix Theory of Structural Analysis	3	0	3	4	MATH 203 Linear Algebra

#### **GLB Electives**

### (4 GLB courses must be taken / 4 GLB kodlu ders alınmak zorundadır)

Code	Course Name	T (s/h)	U (s/h)	Credit	ECST
GLB 102	Innovation and Entrepreneurship	3	0	3	4
GLB 201	Food and Health	3	0	3	4
GLB 202	Immigration and Population	3	0	3	4
GLB 301	Sustainability	3	0	3	4

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#### **NOTES**

For the students in 3rd and 4th years who either haven't taken or have failed any course in his/her graduation curriculum, if the related course is not available in the new curriculum,

- If there is a designated course in the table below, student have to take that course. On condition that the new course's ECTS is lower than the former one, the student have to take additional course(s) by approval of his/her advisor.
- Students who either haven't taken or have failed "HUM101 Understanding Contemporary World", "HUM102 Imagining Future" or PDA coded courses have to take "SOC" or "GLB" coded courses which has at least 3 ECTS by approvals of his/her advisor, course instructor and the head of department.
- Students who either haven't taken or have failed SCI 102 Science of Nature II have to take PHYS 102 Physics II and/or CHEM 101 Chemistry for Engineers.

#### **NOTLAR**

- 3. ve 4. sınıf öğrencilerinden, mezuniyet şablonunda yer alan bir dersi hiç almamış veya alıp da dersten kalmış öğrenciler, yeni müfredatta o dersin olmaması durumunda,
  - Aşağıdaki tabloda yerine belirlenen bir ders varsa öğrenci o dersi alacaktır. Yerine aldığı dersin AKTS'si daha düşükse, akademik danışmanının onayıyla aradaki farkı tamamlayacak şekilde ilave ders alacaktır.
  - "HUM101 Understanding Contemporary World", "HUM102 Imagining Future" ve PDA kodlu dersleri hiç almamış veya alıp da başarısız olmuş öğrenciler bu derslerin yerine "SOC" ya da "GLB" kodlu ve en az 3 AKTS'lik bir dersi akademik danışmanının, yerine alacağı dersin öğretim elemanının ve bölüm başkanının onayı ile alacaktır.
  - SCI 102 Science of Nature II dersini hiç almamış veya alıp da dersten kalmış olan öğrenciler, ilgili dersin yerine PHYS 102 Physics II ve/veya CHEM 101 Chemistry for Engineers derslerini alacaktır.

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Courses at the Former Curriculum (Eski Müfredattaki Dersler)							Courses at the New Curriculum (Yeni Müfredattaki Dersler)					
Code	Course Name	Contact (h/w)	Lab (h/w)	Credit	ECTS		Code	Course Name	Contact (h/w)	Lab (h/w)	Credit	ECTS
MATH 101	Calculus I	4	0	4	5	$\rightarrow$	MATH 151	Calculus I	5	0	5	6
SCI 101	Science of Nature I	3	2	4	7	$\rightarrow$	PHYS 101	Physics I	3	2	4	5
COMP 101	Art of Computing	3	2	4	6	$\rightarrow$	COMP 101	Art of Computing	3	2	4	6
ENG 101	English I	4	0	4	4	$\rightarrow$	ENG 101	English I	4	0	4	4
TURK 101	Turkish I	2	0	2	2	$\rightarrow$	TURK 101	Turkish I	2	0	2	2
MATH 102	Calculus II	4	0	4	5	$\rightarrow$	MATH 152	Calculus II	5	0	5	6
SCI 102	Science of Nature II	3	2	4	7	$\rightarrow$	PHYS 102 CHEM 101	Physics II Chemistry for Engineers	3	2	4	5
CE 102	Exploring Profession	3	2	4	6	$\rightarrow$	CE 102	Exploring Profession	2	2	3	6
ENG 102	English II	4	0	4	4	$\rightarrow$	ENG 102	English II	4	0	4	4
TURK 102	Turkish II	2	0	2	2	$\rightarrow$	TURK 102	Turkish II	2	0	2	2
CE 221	Mechanics	2	2	3	5	$\rightarrow$	CE 221	Mechanics	4	0	4	6
MATH 203	Linear Algebra	3	0	3	5	$\rightarrow$	MATH 203	Linear Algebra	3	0	3	5
CE 201	Civil Engineering Drawing	1	2	2	4	$\rightarrow$	CE 101	Civil Egineering Drawing	1	2	2	5
CE 262	Geology for Civil Engineering	3	0	3	4	$\rightarrow$	CE 262	Geology for Civil Engineering	3	0	3	4
BA 221	Entrepreneurship and Innovation	3	0	3	4	$\rightarrow$	GLB XXX	Global Issues elective I	3	0	3	4
HIST 201	History of Modern Turkey I	2	0	2	2	$\rightarrow$	HIST 201	History of Modern Turkey I	2	0	2	2
MATH 202	Engineering Mathematics II	4	0	4	6	$\rightarrow$	MATH 205	Differential Equations	4	0	4	5
CE 222	Strength of Materials	3	2	4	6	$\rightarrow$	CE 222	Strength of Materials	3	2	4	6
CE 242	Materials Science	2	1	3	5	$\rightarrow$	CE 241	Materials Science	2	1	3	5
CE 272	Fluid Mechanics	3	0	3	6	$\rightarrow$	CE 272	Fluid Mechanics	3	0	3	5
CE 202	Numerical Methods for Engineers	2	2	3	5	$\rightarrow$	CE 202	Numerical Methods for Engineers	3	0	3	4
HIST 202	History of Modern Turkey II	2	0	2	2	$\rightarrow$	HIST 202	History of Modern Turkey II	2	0	2	2
CE 300	Summer Practice	0	0	0	6	$\rightarrow$	CE 300	Summer Practice	0	0	0	4
MATH 301	Probability and Statistics	3	0	3	5	$\rightarrow$	MATH 301	Probability and Statistics	3	0	3	5
CE 344	Materials of Construction	2	1	3	4	$\rightarrow$	CE 244	Materials of Construction	2	1	3	4
CE 371	Hydromechanics	3	1	4	5	$\rightarrow$	CE 371	Hydromechanics	3	1	4	5
CE 363	Soil Mechanics	3	2	4	5	$\rightarrow$	CE 363	Soil Mechanics	3	2	4	5
CE 383	Structural Analysis	4	0	4	5	$\rightarrow$	CE 383	Structural Analysis	4	0	4	5
CE 332	Construction Engineering and Management	3	0	3	5	$\rightarrow$	CE 332	Construction Engineering and Management	3	0	3	5
CE 366	Foundation Engineering	3	1	4	5	$\rightarrow$	CE 366	Foundation Engineering	3	1	4	5
CE 374	Hydrology and Water Resources Engineering	4	0	4	5	$\rightarrow$	CE 374	Hydrology and Water Resources Engineering	4	0	4	5
CE 382	Reinforced Concrete	3	0	3	5	$\rightarrow$	CE 382	Reinforced Concrete	3	0	3	5
CE 352	Introduction to Transportation and Traffic Engineering	2	1	3	5	$\rightarrow$	CE 352	Introduction to Transportation and Traffic Engineering	2	1	3	5
CE 384	Steel Structures	3	0	3	5	$\rightarrow$	CE 481	Fundamentals of Steel Design	3	2	4	6
CE 400	Summer Practice	0	0	0	6	$\rightarrow$	CE 400	Summer Practice	0	0	0	4
CE 401	Capstone Design - I	2	2	3	6	$\rightarrow$	CE 403	Capstone Design	2	2	3	7
ECON 222	Economics for Engineers	3	0	3	4	$\rightarrow$	ECON 222	Economics for Engineers	3	0	3	4
	Technical Elective	3	0	3	6	$\rightarrow$		Technical Elective	3	0	3	4
0 × × 0 × 0 ×	Technical Elective	3	0	3	6	$\rightarrow$	0.000	Technical Elective	3	0	3	4
OHS 401	Occupational Health and Safety	2	0	2	1	$\rightarrow$	OHS 401	Occupational Health and Safety	2	0	2	1
CE 402	Capstone Design - II Technical Elective	2	0	3	6	$\rightarrow$	CE 402	Capstone Design - II Technical Elective	2	0	3	6
	Technical Elective	3	0	3	6	$\rightarrow$		Technical Elective	3	0	3	4
	Technical Elective	3	0	3	6	$\rightarrow$		Technical Elective	3	0	3	4
	Technical Elective	3	0	3	6	$\rightarrow$		Technical Elective	3	0	3	4
OHS 402	Occupational Health and Safety	2	0	2	1	$\rightarrow$	OHS 402	Occupational Health and Safety	1	0	1	1