

# GEOMATICS ENGINEERING BA PROGRAM

## COURSES

Course Code	Course Name	Credit	ECTS
<b>Academic Year I</b>			
<b>Fall</b>			
AYD101	Academic Writing	2.00	2
AİT101	Atatürk's Principles and Turkish Revolution History 1	2.00	2
HRT101	Surveying 1	3.50	7
HRT103	Mathematics-1	4.00	7
HRT117	Introduction to Geomatic Engineering	1.00	1
HRT105	Physics-1	4.00	7
TDL101	Turkish Language 1	2.00	2
AKT101	Academic Turkish-1	2.00	2
YBD101	Foreign Language 1 (English)	2.00	2
<b>Academic Year I</b>			
<b>Autumn</b>			
AİT102	Atatürk's Principles and Turkish Revolution History 2	2.00	2
HRT102	Surveying 2	2.50	6
KRP102	Carrier Planning	1.00	2
HRT104	Mathematics-2	4.00	6
HRT106	Physics-2	4.00	6
HRT114	Information Technology Use in Geomatics Engineering	3.00	3
HRT118	Engineering Ethics	1.00	1
TDL102	Turkish Language 2	2.00	2
YBD102	Foreign Language 2 (English)	2.00	2
AKT102	Academic Turkish-2	2.00	2
<b>Academic Year II</b>			
<b>Fall</b>			
HRT201	Positioning Surveying	2.50	5
HRT203	Computer Aided Map Drawing	3.00	4
HRT205	Introduction to Cartography	2.00	3
HRT207	Computer Programming	3.00	3
HRT209	Coordinate Systems In Geodesy	2.00	3
HRT211	Error Information and Statistics	3.00	4
HRT213	Linear Algebra	4.00	5
İSGGÜV1	Occupational Health and Safety-1	1.00	1
BTF201	History and Philosophy of Science	2.00	2
<b>Academic Year II</b>			
<b>Autumn</b>			
HRT202	Geographical Information System and Applications	2.50	5
HRT204	Numerical Analysis	2.00	5
HRT206	Height Measurements	2.50	5
HRT208	Map Projections	2.00	4

HRT210	Differential Equations	4.00	5
HRT212	GNSS Technique and Applications	2.50	5
İSGGÜV2	Occupational Health and Safety-2	1.00	1
<b>Academic Year III</b>	<b>Fall</b>		
HRT301	Error Theory and Parameter Estimation	3.00	5
HRT303	Introduction to Geodesy	3.00	5
HRT305	Introduction to Photogrammetry	3.00	5
HRT307	Cadastre	2.00	5
	Technical Elective Courses– 1 (T.E.1)	2.00	5
	Technical Elective Courses– 2 (T.E.2)	2.00	5
HRT327	Error Sources in GNSS (TEC1)		
HRT311	Property Valuation (TEC1)		
BİL101	Information Technologies (TEC1)		
HRT313	Mine Surveying (TEC1)		
HRT315	History of Cartography (TEC1)		
HRT317	Expropriation Law (TEC1)		
HRT319	Differential Geometry (TEC2)		
HRT321	Vision on Computer (TEC2)		
HRT323	C Applications in Geomatics Engineering (TEC2)		
HRT325	Remote Sensing and GIS Integration (TEC2)		
<b>Academic Year III</b>	<b>Autumn</b>		
HRT302	Adjustment Computation	3.00	3
HRT304	Land Surveying	2.00	2
HRT306	Road Design and Project	2.00	3
HRT308	Remote Sensing	2.50	3
HRT310	Photogrammetry	2.50	3
ELD302	Critical Thinking	2.00	2
	Elective Design Project	2.00	6
HRT334	3D Modeling with Photogrammetry and Remote Sensing (EDP)		
HRT336	Map Making Applications (EDP)		
	Technical Elective-3 (TEC-3)	2.00	4
	Technical Elective-4 (TEC-4)	2.00	4
HRT316	Cartographic Reproduction Technique (TEC3)		
HRT318	CORS-TR Applications (TEC3)		
HRT320	Industrial Photogrammetry (TEC3)		
HRT322	Urban Geographic Information Techniques (TEC3)		
HRT324	Forest Cadastre (TEC3)		
HRT326	Geodesic Astronomy (TEC4)		
HRT328	Image Interpretation in Remote Sensing (TEC4)		
HRT330	Spatial Databases (TEC4)		
HRT332	Hydrographic Surveying (TEC4)		

<b>Academic Year IV</b>	<b>Fall</b>		
HRT401	Engineering Surveying	3.00	4
HRT403	Urban Land Consolidation and Applications	2.50	3
HRT437	Project Management in Survey Engineering	2.50	2
HRT409	Photogrammetric Evaluation and Production	2.50	3
	Elective Geomatics Engineering Applications 1	2.50	6
HRT411	Surveying-Geodesy Applications 1		
HRT413	Land Management – Cartography Applications 1		
HRT415	Remote Sensing – Photogrammetry Applications 1		
	Non-Technical Elective Courses – 1 (NTEC1)		
HRT441	Social Responsibility (NTEC1)	2.00	4
HRT407	Entrepreneurial Culture	2.00	4
HRT419	Social Life and Map (NTEC1)	2.00	4
HRT421	GIS In Our Lives (NTEC1)	2.00	4
GNLÇLŞ	Volunteering Studies (NTEC1)	2.00	2
TKNBAG1	Technology Addiction (NTEC1)	2.00	4
	Technical Elective Courses– 5 (TEC5)	2.00	4
	Technical Elective Courses– 6 (TEC6)	2.00	4
HRT439	Navigation Purposed GNSS Applications (TEC5)		
HRT425	Disaster Management System (TEC5)		
HRT427	Deformation measurements in Engineering Structures (TEC5)		
HRT429	Web Cartography (TEC5)		
HRT431	Software Usage in Remote Sensing (TEC6)		
HRT433	Terrestrial Laser Scanners (TEC6)		
HRT435	Land Management (TEC6)		
HRT405	Physical Geodesy (TEC6)		
<b>Academic Year IV</b>	<b>Autumn</b>		
HRT402	Property Law	2.00	3
HRT404	Rural Land Consolidation and Application	2.50	3
HRT406	Satellite Geodesy	2.00	2
	Elective Geomatics Engineering Applications 2	3.00	6
HRT408	Surveying-Geodesy Applications 2		
HRT410	Land Management – Cartography Applications 2		
HRT412	Remote Sensing – Photogrammetry Applications 2		
	Non-Technical Elective Courses – 2 (NTEC2)		
HRT414	Spatial Data and Information (NTEC2)		
HRT416	Disaster Awareness (NTEC2)		
HRT418	Technical Expertise in Professional Practices (NTEC2)		
	Technical Elective Courses– 7 (TEC7)	2.00	4
	Technical Elective Courses– 8 (TEC8)	2.00	4
HRT420	Adjustment of GNSS Networks in Commercial Software (TEC7)		
HRT422	Mobile Cartography (TEC7)		
HRT424	Analysis of GNSS Data (TEC7)		

HRT426	Classification of Spatial Data and Thematic Map Techniques (TEC7)		
HRT440	Cartography in Education (TEC7)		
HRT428	Deformation Measurements (TEC8)		
HRT430	Data Extraction in Remote Sensing (TEC8)		
HRT432	Image Processing with Matlab (TEC8)		
HRT434	Information Technologies in Urban Regeneration (TEC8)		
HRT436	Block Management in Urban Regeneration (TEC8)		
HRT438	Practice (30 days)	0.00	5

