

Course Code	Course Name	Teorical	Practice	Laboratory	Credits	ECTS
GE432	UAV Photogrammetry	3.00	0.00	0.00	3.00	6.00
Course Detail						
<b>Course Language</b>	: English					
<b>Qualification Degree</b>	: Bachelor					
<b>Course Type</b>	: Optional					
<b>Preconditions</b>	: Not					
<b>Objectives of the Course</b>	: The lecture will teach the concept of UAVs as carrier platform for photogrammetry and will deliver details about the sensors of UAVs using for mapping purposes.					
<b>Course Contents</b>	: Introduction to UAV Photogrammetry is given and compared with traditional photogrammetry. UAV components and their actions on UAV are described. Preparing and utilization of data acquired by UAV and outcomes are described. Especially preparing, visualization and exporting of Orthophotos and Digital Elevation Models as outcomes are given in detail.					
<b>Recommended or Required Reading</b>	: 1- Blyenburgh, P.V. 1999, UAVS - Current Situation And Considerations For The Way Forward, Development and Operation of UAVs for Military and Civil Applications Report, Belgium 2- Eisenbeiss, H. (2009) UAV photogrammetry, ETH Zurich for the degree of Doctor of Science, Zurich, Switzerland.					
<b>Planned Learning Activities and Teaching Methods</b>	: Face to face					
<b>Recommended Optional Programme Components</b>	: Weekly contents are interrelated					
<b>Instructors</b>	: Dr. Öğr. Üyesi Serkan Karakış					
<b>Instructor's Assistants</b>	: NA					
<b>Presentation Of Course</b>	: Slides and visual contents					
<b>En Son Güncelleme Tarihi:</b>	:					

Course Outcomes

Upon the completion of this course a student :

- 1 To be able to relate UAVs and their electronic parts to photogrammetric solutions
- 2 To be able to figure out electronics and electronic programming relationship
- 3 To be able to carry out flying rules and standards
- 4 To be able to write simple electronic programs for UAVs
- 5 To be able to use photogrammetric software and progress steps

Preconditions

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Weekly Contents

	Teorical	Practice	Laboratory	Preparation Info	Teaching Methods	Course Learning Outcomes
1.Week	*Introduction					
2.Week	*Differences and similarities of traditional and UAV photogrammetry					
3.Week	*Carrier Platforms					
4.Week	*UAVs as carrier platforms					
5.Week	*Thrust sources and abilities for UAVs					
6.Week	*Sensors					
7.Week	*Sensors					
8.Week	*Mid-term exam					
9.Week	*Data acquisition problems					
10.Week		*Flying trials				
11.Week		*Data acquisition				
12.Week		*Data preparation				
13.Week		*Software work				
14.Week		*Production of orthophotos and 3D models				

Assesment Methods %

- 1 Mdterms : 20.000
- 2 Assignment : 20.000
- 3 Final : 60.000

ECTS Workload			
Activities	Count	Time(Hour)	Sum of Workload
Derse Katılım / Attending lectures	14	3.00	42.00
Ara Sınav Hazırlık / Preparation for midterm	1	10.00	10.00
Vize / Midterms	1	1.00	1.00
Ödev / Assignment	1	80.00	80.00
Proje / Project	1	40.00	40.00
Final / Final	1	1.00	1.00
			Total : 174.00
			Sum of Workload / 30 ( Hour ) : 6
			ECTS : 6.00

Program And OutcomeRelation											
	P.O. 1	P.O. 2	P.O. 3	P.O. 4	P.O. 5	P.O. 6	P.O. 7	P.O. 8	P.O. 9	P.O. 10	P.O. 11
L.O. 1	0	5	0	5	5	0	0	0	0	0	0
L.O. 2	0	5	0	5	5	0	0	0	0	0	0
L.O. 3	0	5	0	5	5	0	0	0	0	0	0
L.O. 4	0	5	0	5	5	0	0	0	0	0	0
L.O. 5	0	5	0	5	5	0	0	0	0	0	0