Department of Geomatics Engineering / Department of Geomatics Engineering / Department of Geomatics Engineering

Course Code	Course Name	Teorical	Practice	Laboratory	Credits	ECTS
GE301	PHOTOGRAMMETRY	3.00	0.00	0.00	3.00	4.00

Course Detail

Course Language	:	English
Qualification Degree	:	Bachelor
Course Type	:	Compulsory
Preconditions	:	Not
Objectives of the Course	:	The objective of this course is to give basic information about the photogrammetry and its application areas, fundamentals of optic, photographic and mathematics of photogrammetry, coordinate systems and geometric transformations, photogrammetric measurement and evaluation methods. Students will have basic knowledge for perceive methodologies in photogrammetric measurement, evaluation and production after taking this course.
Course Contents	:	Definition, content and application of the photogrammetry, brief history and classification of photogrammetry, fundamental terms and concepts in photogrammetry, geometric principles, coordinate systems and geometric transformation, projection methods and central perspective projection, optical principles, lenses, errors and correction methods for lenses, photographic fundamentals, photogrammetric cameras and camera calibration, photograph and image recording, filters, monoscopic and stereoscopic viewing, natural depth interpretation, stereoscopic viewing methods, photogrammetric measurement and evaluation, photogrammetric measurement systems.
Recommended or Required Reading	:	Kraus, K., Photogrammetry I, II, Ümmler, 1997 Manuel of Photogrammery, ASPRS, 2004 Elements of Photogrammetry with Application in GIS, Fourth Edition, Paul Wolf, Bon DeWitt
Planned Learning Activities and Teaching Methods	:	face to face
Recommended Optional Programme Components	:	Attendance is important.
Instructors	:	Dr. Öğr. Üyesi Müge Ağca
Instructor's Assistants	:	There is no instructure's assisstant
Presentation Of Course	:	slayt presentations
En Son Güncelleme Tarihi:	:	

Course Outcomes

Upon the completion of this course a student :

1 They learn about definition, content and application of the photogrammetry

2 They learn optic, photographic and mathematical principles in photogrammetry

3 They learn coordinate systems and geometric transformations.

4 They learn about stereoscopic viewing and stereoscopic viewing methods.

5 Students shall gain basic knowledge on comprehend methodologies in photogrammetric measurement, evaluation and production.

Preconditions

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Weekly Contents

	Teorical	Practice	Laboratory	Preparation Info	Teaching Methods	Course Learning Outcomes
1.Week	*Introduction					
2.Week	*Brief history, classification of photogrammetry, application areas					
3.Week	*Terms and concepts of photogrammetry and mathematical and geometrical basis of photogrammetry					
4.Week	*Coordinate systems and system conversions					
5.Week	*Projection methods and central perspective projection					
6.Week	*Photogrammetry and optics					
7.Week	*Lenses, errors and correction methods					
8.Week	*Midterm Exam					
9.Week	*Photogrametry and photograpy					
10.Week	*Photogrammetric cameras and camera calibration					
11.Week	*Photograph and image recording, filters					
12.Week	*Monoscopic and stereoscopic viewing					
13.Week	*Natural depth interpretation, stereoscopic viewing methods					
14.Week	*Photogrammetric measurement and evaluation					

Assesment Methods %

1 Midterms : 40.000

2 Final : 60.000

ECTS Workload

Activities	Count	Time(Hour)	Sum of Workload
Vize / Midterms	1	1.00	1.00
Final / Final	1	2.00	2.00
Derse Katılım / Attending lectures	14	3.00	42.00
Ders Öncesi Biresysel Çalışma / Individual study before lecture	14	2.00	28.00
Ders Sonrası Biresysel Çalışma / Individual study after lecture	14	2.00	28.00
Ara Sınav Hazırlık / Preparation for midterm	1	5.00	5.00
Final Sınavı Hazırlık / Preparation for final	1	10.00	10.00
		Total :	116.00
		Sum of Workload / 30 (Hour) :	4
		ECTS :	4.00

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	5	4	0	0	0	5	0	0	0	0	0
L.O. 2	5	4	0	0	0	5	0	0	0	0	0
L.O. 3	5	4	0	0	0	5	0	0	0	0	0
L.O. 4	5	4	0	0	0	5	0	0	0	0	0
L.O. 5	5	4	0	0	0	5	0	0	0	0	0