ARCHITECTURAL SURVEYING AND MEASURING TECHNIQUES
2026-2027 Fall Semester
Nurdan KUBAN ORCAN

DATE		CONTENT		DATE		CONTENT
30.09.2026	WEEK 1	introduction to the course • Why humans measure • Measurement as a cultural practice • Space and time as measurable phenomena • The body as the first measuring instrument • Origins of units and standardization • Relative vs. absolute measurement		25.11.2026	WEEK 9	15-18TH CENTURIES From Traditional Surveying to Scientific Measurement • Cartesian coordinates • Geodesy • Benchmarks • Reference systems • Standardization
7.10.2026	WEEK 2	• Measurement through reference • Known and unknown points • Coordinate thinking before coordinates • Triangulation as a universal logic • Errors and uncertainty		2.12.2026	WEEK 10	19-20TH CENTURIES Optical Instruments • Level • Theodolite • Total Station
14.10.2026	WEEK 3	Pre-modern Measuring Instruments Measuring distance • Surveyor's Chain • Measuring Rope Measuring level • Water level • Plumb line • Havai Terazi Measuring angle • Quadrant (Rubu Tahtası) • Astrolabe • Sextant Establishing orientation • Compass • Solar observation	18.11.2026 WEEK 8 MIDTERM	9.12.2026	WEEK 11	EDM (Electronic Distance Measurement) • Laser • EDM • Reflectors • Accuracy
21.10.2026	WEEK 4	Workshop I Building a Suspended Triangular Level (Havai Terazi)		16.12.2026	WEEK 12	GNSS and Satellite Positioning
28.10.2026	WEEK 5	Workshop II Building a Quadrant (Rubu Tahtası)		23.12.2026	WEEK 13	Photogrammetry
4.11.2026	WEEK 6	Field Exercise Surveying with Self-Made Instruments		30.12.2026	WEEK 14	Laser Scanning and Point Clouds Comparison of Measuring Methods
11.11.2026	WEEK 7	Site trip to Pera Museum and History of Islamic Science and Technology Museum				