

Course Title-Course Code: CE 512 NUMERICAL METHODS IN CIVIL ENGINEERING							Name of the Programme: CIVIL ENGINEERING		
Semester	Teaching Methods							Credits	
	Lecture	Recite	Lab.	Field Study	H W	Other	Total	Credit	ECTS Credit
1-2	42	0	0	0	28	118	188	3	7.5
Language	Turkish								
Compulsory / Elective	Elective								
Prerequisites	-								
Course Contents	Algebra of matrix, non-linear equations, Interpolation, Numerical integral and differentiations, Solutions of simple differential and partial differential equations with finite differences, Introduction to finite element and finite volume methods, Applications for civil engineering								
Course Objectives	Solution of civil engineering problems using numerical methods								
Learning Outcomes and Competences	Learning of widely used various numerical methods and applying these methods to solve civil engineering problems								
Textbook and /or References	Akai, T.J., 1994, "Applied Numerical Methods for Engineers", 410 p., John Wiley and Sons Mathews, J.H., 1992, "Numerical Methods for Mathematics, Science and Engineering", 646 p., Prentice-Hall International Smith, G.D., 1993, "Numerical Solution of Partial Differential Equations: Finite Difference Methods", 337 p., Clarendon Press, Oxford								
Assessment Criteria								<i>If any, mark as (X)</i>	Percent (%)
	Midterm Exams							X	30
	Quizzes								
	Homeworks							X	10
	Projects								
	Term Paper								
	Laboratory Work								
	Other								
	Final Exam							X	60
Instructors	Asst. Prof. Dr. Müsteyde BADUNA KOÇYİĞİT								