

Course Title-Course Code: CE 514 DIFUSSION							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	0	146	188	3	7.5
Language	Turkish								
Compulsory / Elective	Elective								
Prerequisites	-								
Course Contents	Euler diffusion equations, longitudinal and transverse diffusion in turbulent flows, diffusion of pollutants in river and canal flows, mixing and diffusion in lake, bays and estuaries, diffusion of thermal jet flows								
Course Objectives	Theoretical knowledge of diffusion in water flows								
Learning Outcomes and Competences	Determination of distribution of temperature, salinity or various pollution parameters in inland or coastal water and finding practical solution to environmental water pollution problems								
Textbook and /or References	1- Fischer, H.B., 1979, "Mixing in Inland and Coastal Waters", Academic Press, 483 p. 2- Martin, J.L. nad McCutcheon, S.C., 1999, Hydrodynamics and Transport for Water Quality Modelling", CRC Press, 794 p. 3-Bedford, K.W.,1994,"Diffusion, Dispersion and Sub-grid Parameterization", Coastal Estuarial and Harbour Engineers Reference Book, edited by M.B. Abbott and W.A. Price, E&FN Spon Ltd. Chapter 5, pp: 61-82 4-Smith, R., 1992, "Physics of Dispersion in Coastal and Estuarine Pollution: Methods and Solutions", Scottish Hydraulics Study Group, Glasgow, UK .								
Assessment Criteria								<i>If any, mark as (X)</i>	Percent (%)
	Midterm Exams							X	30
	Quizzes								
	Homeworks								
	Projects								
	Term Paper								
	Laboratory Work								
	Other								
	Final Exam							X	70
Instructors	Prof.Dr. Nevzat YILDIRIM								