Course Title-Course Code: CE 517 ADVANCED FLUID MECHANICS	**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	Hydrostatic, kinematics, Lagrangian and Eulerian flow descriptions, transformation, velocity and acceleration, stream line and path line, vorticity, laminar pipe flow, control volume, Reynolds Transport Law, continuity, momentum, angular momentum, energy, Navier-Stokes equations for laminar and turbulent flows, boundary layer and velocity distribution, drag and lift forces, potential flow, flow-net, sink, source and doublet.
Course Objectives	To give the basic principles of motion of fluids
Learning Outcomes and Competences	Gaining the skill of handling and solving the fluid problems
Textbook and /or References	1- Munson, B.R., Young, D.F., and Okiishi, T.H., 'Fundamentals of Fluid Mechanics', John Wiley&Sons Inc., New York, 1994. 2- Fox, R.W.; and McDonald, A.T., 'Introduction to Fluid Mechanics', John Wiley&Sons Inc., New York, 1978. 3- Streeter, V.L.; and Wylie, E.B., 'Fluid Mechanics', McGraw-Hill Inc., New York, 1975. 4- Ilgaz, C., Karahan, E., ve Bulu, A., Akışkanlar Mekaniği ve Hidrolik Problemleri', Çağlayan Yayınevi, İstanbul, 1993.

Assessment Criteria		***If any,mark as (X)***	**Percent (%)**
	Midterm Exams	X	30
	Quizzes		
	Homeworks		
	Projects		
	Term Paper		
	Laboratory Work		
	Other		
	Final Exam	X	70

Instructors	Prof.Dr. Nevzat YILDIRIM