Course Name/Code ILT 537 Non-destructive Test Techniques								ADVANCED TECHNOLOGIES	
Semester	Nondestructive							Credit	
	Theory	App.	Lab.	Project	Term paper	Other	Total	Credit	ECTS Credit
1-2	42		80		20	46	188	**3**	**7.5**
Language	Turkish								
Compulsory/ Elective	Elective								
Prerequisites	None								
Course Content	Discontinuity in the materials and the description of Non-destructive Test Management, Classification of Non-destructive Test Techniques. Liquid penetration management, Magnetic particulate management, Eddy Currency Management, Radiographic Test Method and ultrasonic method.								
Course Objectives	The course will enable students to learn to understand in detail the most common Non-destructive Test Methods used in the industry and research without destructing the physical quality or the usability of the materials in order to determine its quality.								
Learning outcomes and competences	Ability to use technical /modern materials to be required in her/his studies, ability to present oral and written forms in her/his field, ability to work on interdisciplinary studies, ability to rapidly distinguish the truly required knowledge, ability to do analyze of results. With the laboratory applications learning about the Non-destructive Test methods techniques on the spot.								
Textbook and /or References	1. Nondestructive Test : Materials discontinuies, Türkiye Atom Enerjisi Kurumu, Çekmece Nükleer Arastırma ve Egitim Merkezi 1991 2. ASM HANDBOOK Nondestructive Evaluation and Quality ControlVolume 17								

Assessment Criteria		***If any, mark as (X)***	**Percentage (%)**
	Midterm Exams	X	20
	Quizzes		
	Homeworks		
	Projects		
	Term paper	X	10
	Laboratory Work	X	30
	Other		
	Final Exam	X	40

Prepared by	Prof.Dr. İbrahim USLU
Week	**Subject**
1	Description and of Nondestructive Test Management
2	Classification of Nondestructive Test Management
3	Liquid penetration management, its application, its advantages and disadvantages
4	Magnetic particulate management and its fields of application, its principles and limitations.
5	Description of the Eddy Currency and its general application procedure
6	Files of application of the Eddy Currency
7	Midterm Exam
8	Radiographic analysis and testing techniques and their basic principles
9	Advantages and disadvantages of radiographic analysis and testing techniques
10	Ultrasonic method and its basic principles.
11	Applications of ultrasonic management.
12	Laboratory applications of the eddy currency
13	Laboratory applications of radiographic analysis and testing techniques
14	Laboratory applications of ultrasonic analysis and testing techniques