

RAILWAYS

1	Course Title:	RAILWAYS	
2	Course Code:	INS4086	
3	Type of Course:	Optional	
4	Level of Course:	First Cycle	
5	Year of Study:	4	
6	Semester:	8	
7	ECTS Credits Allocated:	3.00	
8	Theoretical (hour/week):	2.00	
9	Practice (hour/week):	1.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	None	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Doç.Dr. TURAN ARSLAN	
15	Course Lecturers:		
16	Contact information of the Course Coordinator:	arsltur@uludag.edu.tr 0 224 294 2639	
17	Website:	http://insaat.uludag.edu.tr/	
18	Objective of the Course:	To provide basic understanding of railroads and methods for conducting railway design	
19	Contribution of the Course to Professional Development:		
20	Learning Outcomes:		
		1	To be able to understand railroad components
		2	To be able to understand rolling stocks and their characteristics
		3	To be able to define technologies used in railroad transportation
		4	To be able to calculate traction power, motion and speed regimes
		5	To be able to apply vertical and horizontal design principles on railroads
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21	Course Content:		
		Course Content:	
Week	Theoretical	Practice	
1	Transportation Systems and Railroad Transportation		
2	Railroad History in World and Turkey		
3	Railroad Components		
4	Rolling Stocks Types and Characteristics		

5	Traction Power	Solving application problems
6	Motion and Speed Regimes	Solving application problems
7	Railroad Geometrics	Solving application problems
8	Vertical Alignments and Curve Radius	Solving application problems
9	Railroad Types and Characteristics	
10	Rails and Ties	
11	Cross Sections and Ballasts	
12	Rapid Railroad Applications	
13	Railroad Practices in World and Turkey	
14	Railroad Applications for Urban Transportation	

22	Textbooks, References and/or Other Materials:	<ul style="list-style-type: none"> - Toprak İşleri ve Demiryolu, İnal Seçkin, Çağlayan Kitabevi, 2003 - Demiryolu, Güngör Evren, Birsen Yayınevi, 2002 - W.W. Hay, Railroad Engineering, John Wiley & Sons
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23	Assesment
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TERM LEARNING ACTIVITIES	NUMBER	WEIGHT		
Midterm Exam	1	20.00		
Quiz	0	0.00		
Home work-project	8	20.00		
Activites	Number	Duration (hour)	Total Work Load (hour)	
Contribution of Term (Year) Learning Activities to Success Grade	40.00	14	2.00	28.00
Practicals/Labs	14	1.00	14.00	
Self study and preparation	14	2.00	28.00	
Total	100.00			
Homeworks	8	2.00	16.00	
Measurement and Evaluation Techniques Used in the Course	0	0.00	0.00	
Field Studies	0	0.00	0.00	
Midterm exams	1	2.00	2.00	
Others	0	0.00	0.00	
Final Exams	1	2.00	2.00	
Total Work Load			92.00	
Total work load/ 30 hr			3.00	
ECTS Credit of the Course			3.00	

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ÖK5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contrib ution Level:	1 very low		2 low		3 Medium		4 High		5 Very High							