

Fizik Bölümü / PHYSICS /						
Course Code	Course Name	Teorical	Practice	Laboratory	Credits	ECTS
FZK-4015	Astrophysics I	2.00	2.00	0.00	3.00	7.00
Course Detail						
Course Language	: Turkish					
Qualification Degree	: Bachelor					
Course Type	: Optional					
Preconditions	: Not					
Objectives of the Course	: The objective of this course is to provide the student get acquainted to the fundamental features of the stars from their lights we receive using the laws of physics.					
Course Contents	: Topics of this course are as follows: Introduction: What is mean of astronomy and astrophysics?, Basic Knowledge About Radiation, Radiation Laws, General Properties of Stars, Spectra of Stars, Temperatures, Masses and Densities of Stars.					
Recommended or Required Reading	: (1) Erika Böhm-Vitense, 1989, Introduction to Stellar Astrophysics Vol:1, 2 and 3 , Cambridge, Cambridge University Press. (2) Abdullah Kızırmak, 1970, Astronomy Lectures Vol. 3 Introduction to Astrophysics, Ege University (Faculty of Science) Press. (3) Bisnovatyi-Kogan, G. S. (translated by A.Y. Blinov, M. Romanova), 2002, Stellar Physics, Berlin: Springer.					
Planned Learning Activities and Teaching Methods	: Lecturing, application/practice					
Recommended Optional Programme Components	: -					
Instructors	: Assoc. Prof. Dr. Filiz Kahraman Aliçavuş					
Instructor's Assistants	: Yoktur					
Presentation Of Course	: Online					

Course Outcomes	
Upon the completion of this course a student :	
1	Defines the concepts of astronomy and astrophysics
2	Defines the fundamental concepts of radiation
3	Writes the equations of radiation laws
4	Gives the examples for the types of stellar magnitudes
5	Determines the positions of stars on HR diagram using their absolute magnitudes and spectral types
6	Explains the types of stellar temperatures with outlined

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Weekly Contents					
	Teorical	Practice	Laboratory	Preparation Info	Teaching Methods
1.Week	*Introduction, What is the mean of astronomy and astrophysics?	*Introduction, What is the mean of astronomy and astrophysics?			
2.Week	*Basic Knowledge About Radiation-I	*Basic Knowledge About Radiation-I			
3.Week	*Basic Knowledge About Radiation-II	*Basic Knowledge About Radiation-II			
4.Week	*Basic Knowledge About Radiation-III	*Basic Knowledge About Radiation-III			
5.Week	*Radiation Laws-I	*Radiation Laws-I			
6.Week	*Radiation Laws-II	*Radiation Laws-II			
7.Week	*Radiation Laws-III	*Radiation Laws-III			
8.Week	*Midterm				
9.Week	*General Properties of Stars-I	*General Properties of Stars-I			
10.Week	*General Properties of Stars-II	*General Properties of Stars-II			
11.Week	*Stellar Spectra-I	*Stellar Spectra-I			
12.Week	*Stellar Spectra-II	*Stellar Spectra-II			
13.Week	*Stellar Temperature, Masses and Radii-I	*Stellar Temperature, Masses and Radii-I			
14.Week	*Stellar Temperature, Masses and Radii-II	*Stellar Temperature, Masses and Radii-II			

Assesment Methods %	
1	Md Term Exam 1 : 40.000
2	Final : 60.000

ECTS Workload	
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