Course Information

COURSE INFORMATION

Course Title	Code	Semester	L+U Hour	Credits	ECTS
Astrophysics I	FZK419	7. Semester	2 + 2	3.0	8.0

Prerequisites	None

Language of Instruction	Turkish
Course Level	Bacheclor's Degree (First Cycle)
Course Type	Elective
Mode of delivery	Face to face
Course Coordinator	Assist. Prof. Dr. Burcu ÖZKARDEŞ
Instructors	
Assistants	
Course Objectives	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 Content	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.
Course Learning Outcomes	1) Define the concepts of astronomy and astrophysics. 2) Define the fundamental concepts of radiation. 3) Write the equations of radiation laws. 4) Give examples for the types of stellar magnitudes. 5) Determine the positions of stars on HR diagram using their absolute magnitudes and spectral types. 6) Explain the types of stellar temperatures with outlined.

WEEKLY COURSE CONTENT

Week	Topics	Teaching and Learning Methods and Techniques	Study Materials
1. Week	Introduction, What is mean of astronomy and astrophysics?	Lecturing	
2. Week	Basic Knowledge About Radiation-I	Lecturing	
3. Week	Basic Knowledge About Radiation-II	Lecturing	
4. Week	Basic Knowledge About Radiation-III	Lecturing	
5. Week	Radiation Laws-I	Lecturing	
6. Week	Radiation Laws-II	Lecturing,	

Quick Access

Physics
- Qualification Awarded
- Level of Qualification
- Qualification Requirements and Regulations
- Specific Admission Requirements
- Recognition of Prior Learning
- Profile of the Program
- Program Key Learning Outcomes
- Occupational Profile of Graduates
- Access to Further Studies
- Course Structure & Credits
- Exam Regulations & Assessment & Grading
- Graduation Requirements
- Mode of Study
- Programme Director(or Equivalent)
- Evaluation Questionnaire
- TYYÇ

Course Information
- Course Information
- Weekly Course Content
- Resources
- Course Category
- CONTRIBUTION OF COURSE LEARNING OUTCOMES TO PROGRAMME OUTCOMES
- ECTS credits and course workload

		Application	
7. Week	Radiation Laws-III	Lecturing, Application	
8. Week	Midterm Exam	Written Exam	
9. Week	General Properties of Stars-I	Lecturing	
10. Week	General Properties of Stars-II	Lecturing	
11. Week	Stellar Spectra-I	Lecturing	
12. Week	Stellar Spectra-II	Lecturing, Application	
13. Week	Stellar Temperature, Masses and Radii-I	Lecturing	
14. Week	Stellar Temperature, Masses and Radii-II	Lecturing	
15. Week	Review of The Semester	Lecturing, Application, Discussion	
16. Week	Final Exam	Written Exam	

RESOURCES

Recommended Sources
Erika Böhm-Vitense, 1989, Introduction to Stellar Astrophysics Vol:1, 2 and 3 , Cambridge, Cambridge University Press.
Abdullah Kızılırmak, 1970, Gökbilim Dersleri (Volume3) Astrofiziğe Giriş, Ege Univ. Science Faculty Press.
Bisnovatyi-Kogan, G. S. (translated by A.Y. Blinov, M. Romanova), 2002, Stellar Physics, Berlin:Springer

ASSESSMENT

Measurement and Evaluation Methods and Techniques
Midterm Exam (40%), Final Exam (60%)

COURSE CATEGORY

Course Category	Percentage
Core Courses	% 100

CONTRIBUTION OF COURSE LEARNING OUTCOMES TO PROGRAMME OUTCOMES

Programme Outcomes	Contribution Level	DK1	DK2	DK3	DK4	DK5	DK6
PY1	3	3	3	3	3	3	3
PY2	4	4	4	4	4	4	4
PY3	4	4	4	4	4	4	4
PY4	3	3	3	3	3	3	3
PY5	3	3	3	3	3	3	3
PY6	4	4	4	4	4	4	4
PY7	3	3	3	3	3	3	3
PY8	3	3	3	3	3	3	3
PY9	3	3	3	5	3	3	3
PY10	3	3	3	3	3	3	0
PY11	2	2	2	2	2	2	2
PY12	2	2	2	2	2	2	2

PY13	3	3	3	3	3	3	3
PY14	3	3	3	3	3	3	3
PY15	3	3	3	3	3	3	3

*DK = Course's Contrubution.

	0	1	2	3	4	5
Level of contribution	None	Very Low	Low	Fair	High	Very High

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ECTS CREDITS AND COURSE WORKLOAD

Event	Quantity	Duration (Hour)	Total Workload (Hour)
Final Exam	1	2	2
Class Hours (14 weeks)	14	4	56
Final Exam Preparation	1	25	25
Mid Term Exam Preparation	1	25	25
Mid Term Exam 1	1	2	2
Application/Practice	4	2	8
Further Study	7	11	77
		Total Workload	195
		Total Workload / 25.5 (s)	7.65
		ECTS Credit of the Course	8