Course Information

COURSE INFORMATION

Course Title	Code	Semester	L+U Hour	Credits	ECTS
General Astronomy I I	FZK392	6. Semester	2 + 2	3.0	7.0

Prerequisites	None

Language of Instruction	English
Course Level	Bacheclor's Degree (First Cycle)
Course Type	Elective
Mode of delivery	Face to face
Course Coordinator	Prof. Dr. Osman DEMİRCAN
Instructors	Prof. Dr. Osman DEMİRCAN
Assistants	
Course Objectives	The aim of the course is understanding Planck, Stefan-Boltzmann and Wien's laws, Stars and basic parameters of the stars, Energy distribution of stars, the distance of stars, the brightness of stars, the spectra of stars and spectral classification. Boltzmann and Field's laws, H-R diagram, motions of the stars, cluster of the stars, binary stars, variable stars, evolution of the stars.
Course Content	Planck, Stefan-Boltzmann ve Wien's laws., Stars and basic parameters of stars, Energy distribution of stars, Distance of stars, Brightness of the stars, Spectra of the stars and spectral classification., Boltzmann ve Field laws, Hertzsprung – Russel diagram, The motion of stars, The cluster of stars, The formations of stars, The end of the stars, Variables stars, Binary stars
Course Learning Outcomes	1) Explanation of the Planck, Stefan-Boltzman and Wien's laws. 2) Describes energy distribution of stars, basic parameters like distance, brightness and spectral classification of stars. 3) Interprets H-R diagram. 4) Explains what star clusters, evolution of stars, the end of the stars are. 5) Interprets light curve of the variable and binary stars.

WEEKLY COURSE CONTENT

Week	Topics	Teaching and Learning Methods and Techniques	Study Materials
1. Week	Planck, Stefan-Boltzmann ve Wien's laws.		
2. Week	Stars and basic parameters of stars		
3. Week	Energy distribution of stars		
4. Week	Distance of stars		

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
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ECTS credits and course workload

5. Week	Brightness of the stars		
6. Week	Spectra of the stars and spectral classification.		
7. Week	Boltzmann ve Saha laws		
8. Week	Hertzsprung – Russel diagram		
9. Week	Midterm exam		
10. Week	The motion of stars		
11. Week	The cluster of stars		
12. Week	The formations of stars		
13. Week	The end of the stars		
14. Week	Variables stars		
15. Week	Binary stars		
16. Week	final exam		

RESOURCES

Recommended Sources
"Introductory Astronomy and Astrophysics", Michael Zeilik, Stephen A Gregory, Thomson Brooks/Cole, 1997
"Astronomi ve Astrofizik", S. Ozdemir, B. Gürol ve O. Demircan, Asil Yayin Dagitim, 2005
"Fundamentals Of Astronomy", C. Barbieri, Taylor & Francis Group, 2006.
"Fundamental Astronomy",, H. Karttunen, P. Kroger, H. Oja, M. Poutanen, and K. J. Donner, 4th edition (2003) or 5th edition (2007).

ASSESSMENT

Measurement and Evaluation Methods and Techniques		
Midterm Exam (40%), Final Exam (60%)		
In-Term Studies	**Quantity**	**Percentage**
Mid Term Exam 1	1	40
Total	1	40
End-Term Studies	**Quantity**	**Percentage**
Final Exam	1	60
Total	1	60
Contribution Of In-Term Studies To Overall Grade		40
End-Term Studies		60
Total		100

COURSE CATEGORY

Course Category	Percentage
Support Courses	% 100

CONTRIBUTION OF COURSE LEARNING OUTCOMES TO PROGRAMME OUTCOMES

Programme Outcomes	Contribution Level	DK1	DK2	DK3	DK4	DK5
PY1	0	0	0	0	0	0
PY2	3	0	0	0	0	0

PY3	4	3	2	3	3	3
PY4	3	3	3	2	2	3
PY5	4	3	2	3	3	3
PY6	4	3	3	2	2	3
PY7	3	3	3	2	2	3
PY8	2	3	3	3	3	3
PY9	2	3	3	3	2	3
PY10	4	4	4	4	3	4
PY11	4	3	3	3	3	3
PY12	3	3	3	3	3	4
PY13	3	3	3	3	3	3
PY14	2	3	2	3	3	2
PY15	2	3	2	3	2	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)
Class Hours (14 weeks)	14	4	56
Final Exam Preparation	1	7	7
Mid Term Exam Preparation	1	7	7
Assignment 1	8	8	64
Application/Practice	14	3	42
		Total Workload	176
		Total Workload / 25.5 (s)	6.90
		ECTS Credit of the Course	7