Course Information

COURSE INFORMATION

Course Title	Code	Semester	L+U Hour	Credits	ECTS
Galactic And Intergalactic Astronomy	FZ-6022		3 + 0	3.0	7.5

Prerequisites	None

Language of Instruction	Turkish
Course Level	Third Cycle
Course Type	Elective
Mode of delivery	Face to face
Course Coordinator	Prof. Dr. Osman DEMİRCAN
Instructors	Prof. Dr. Osman DEMİRCAN
Assistants	
Course Objectives	This course includes the knowledge about Interstellar space, structure and contents of galaxies, rotation of galaxies, neutral hydrogen distribution, magnetic fields in galaxies, space between galaxies, galaxy clustering, properties of cluster of galaxies, structure of visible universe.
Course Content	Interstellar Space, Galaxies, The structure of Galaxies, The nature of Galaxies, Hubble squence, Active galaxies, The invisible components of galaxies : Dark matter, Notr Hydrogen in Universe, Milkyway, The magnetic fields in Milkyway, Extragalactic space, The clusters of galaxies and their structures, Properties of the clusters of galaxies, The structure of the visible universe
Course Learning Outcomes	1) Explains what is the galaxy and extragalactic space 2) Compares the different types of galaxies 3) Defines the nature of galaxies and structures. 4) Compares the clusters of galaxies and their structures. 5) Explains what is the dark matter

WEEKLY COURSE CONTENT

Week	Topics	Teaching and Learning Methods and Techniques	Study Materials
1. Week	Interstellar Space		
2. Week	Galaxies		
3. Week	The structure of Galaxies		
4. Week	The nature of Galaxies		
5. Week	Hubble squence		

Quick Access

Physics (PhD)
- 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
- CONTRIBUTION OF COURSE LEARNING OUTCOMES TO PROGRAMME OUTCOMES
- ECTS credits and course workload

6. Week	Active galaxies		
7. Week	The invisible components of galaxies : Dark matter		
8. Week	Midterm exam		
9. Week	Notr Hydrogen in Universe		
10. Week	Milkyway		
11. Week	The magnetic fields in Milkyway		
12. Week	Extragalactic space		
13. Week	The clusters of galaxies and their structures		
14. Week	Properties of the clusters of galaxies		
15. Week	The structure of the visible universe		
16. Week	Final exam		

RESOURCES

Recommended Sources
Oster, W., "Modern Astronomy",Holden-Day Inc,1973,.
Morrison, I., "Introduction to Astronomy and Cosmology", John Wiley and Sons,2008.
Carrol, B.W., and Ostlie, D.A.,An "Introduction to Modern Astrophysics", Addison-Wesley publishing Company, 1996.
Özdemir, S., Gürol, B., Demircan, O., "Astronomi ve Astrofizik", Asil yayın dağıtım, 2005.

ASSESSMENT

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

CONTRIBUTION OF COURSE LEARNING OUTCOMES TO PROGRAMME OUTCOMES

Programme Outcomes	Contribution Level	DK1	DK2	DK3	DK4	DK5
PY1	5	5	5	5	5	5
PY2	3	3	3	3	3	3
PY3	5	5	5	5	5	5
PY4	0	0	0	0	0	0
PY5	0	0	0	0	0	0
PY6	5	5	5	5	5	5
PY7	0	0	0	0	0	0
PY8	0	0	0	0	0	0
PY9	0	0	0	0	0	0
PY10	0	0	0	0	0	0
PY11	0	0	0	0	0	0
PY12	0	0	0	0	0	0
PY13	0	0	0	0	0	0
PY14	0	0	0	0	0	0
PY15	0	0	0	0	0	0

*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	3	42
Final Exam Preparation	1	13	13
Mid Term Exam Preparation	1	11	11
Further Study	14	6	84
Assignment 1	7	4	28
Final Exam	2	1	2
		Total Workload	180
		Total Workload / 25.5 (s)	7.06
		ECTS Credit of the Course	7