



# Çanakkale Onsekiz Mart University

Education Information System

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## Course Information

### COURSE INFORMATION

Course Title	Code	Semester	L+U Hour	Credits	ECTS
Variable Stars	FZ5007		3 + 0	3.0	7.5

<b>Prerequisites</b>	None
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<b>Language of Instruction</b>	Turkish
<b>Course Level</b>	Second Cycle
<b>Course Type</b>	Elective
<b>Mode of delivery</b>	Face to face
<b>Course Coordinator</b>	Assoc. Prof. Dr. Esin SOYDUGAN
<b>Instructors</b>	Assoc. Prof. Dr. Esin SOYDUGAN
<b>Assistants</b>	
<b>Course Objectives</b>	To have knowledge about variable stars and their species.
<b>Course Content</b>	Classification of variable stars. Revealing of physical properties of variable stars which have different species.
<b>Course Learning Outcomes</b>	1) Classify variable stars. 2) Interpret the physical mechanism of each variable stars 3) Interpret pulsation mechanism for pulsating stars

### WEEKLY COURSE CONTENT

Week	Topics	Teaching and Learning Methods and Techniques	Study Materials
1. Week	Introduction. Definition of variable stars.	Oral lectures, homework, practice.	
2. Week	Structural variables.	Oral lectures, homework, practice.	
3. Week	Geometrical variables.	Oral lectures, homework, practice.	
4. Week	Pulsating stars and their classification-I.	Oral lectures, homework, practice.	
5. Week	Pulsating stars and their classification -II.	Oral lectures,	

### Quick Access

### Physics (Master)

- 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
- Assessment
- Course Category
- CONTRIBUTION OF COURSE LEARNING OUTCOMES TO PROGRAMME OUTCOMES
- ECTS credits and course workload

		homework, practice.	
6. Week	Bursting stars.	Oral lectures, homework, practice.	
7. Week	Eclipsing binary stars and their classification –I.	Oral lectures, homework, practice.	
8. Week	Mid-term exam.	Written exam.	
9. Week	Eclipsing binary stars and their classification –II.	Oral lectures, homework, practice.	
10. Week	Rotating variable stars-I.	Oral lectures, homework, practice.	
11. Week	Rotating variable stars-II.	Oral lectures, homework, practice.	
12. Week	Cataclysmic variables –I.	Oral lectures, homework, practice.	
13. Week	Cataclysmic variables –II.	Oral lectures, homework, practice.	
14. Week	X-ray binaries-I.	Oral lectures, homework, practice.	
15. Week	X-ray binaries-II.	Oral lectures, homework, practice.	
16. Week	Final exam.	Written exam.	

## RESOURCES

Recommended Sources
-Variable Stars” C. Hoffmeister, G. Richter, W. Wenzel 1985, Springer-Verlag (Berlin).
–“Değişen Yıldızlar”, 2009, Ege Üniversitesi Fen Fakültesi Yayınları No. 179.
- Light Curves of Variable Stars (A Pictorial Atlas)” eds. C. Sterken & C. Jaschek 1996, Cambridge University Pres.

## ASSESSMENT

Measurement and Evaluation Methods and Techniques		
Mid-term exam (40 percent) and final exam (60 percent).		
In-Term Studies	Quantity	Percentage
Mid Term Exam 1	1	40
<b>Total</b>	1	40
End-Term Studies	Quantity	Percentage
Final Exam	1	60
<b>Total</b>	1	60
<b>Contribution Of In-Term Studies To Overall Grade</b>		40
<b>End-Term Studies</b>		60
<b>Total</b>		100

## COURSE CATEGORY

Course Category	Percentage
Core Courses	% 100

## CONTRIBUTION OF COURSE LEARNING OUTCOMES TO PROGRAMME OUTCOMES

Programme Outcomes	Contribution Level	DK1	DK2	DK3
PY1	5	5	5	0
PY2	3	4	3	0
PY3	5	5	5	0
PY4	5	5	5	0
PY5	5	5	5	0
PY6	5	5	5	0
PY7	5	5	5	0
PY8	5	5	5	0
PY9	4	4	4	0
PY10	3	3	3	0
PY11	3	3	3	0
PY12	5	5	4	0
PY13	4	4	4	0
PY14	4	4	4	0
PY15	5	4	5	0

\*DK = Course's Contribution.

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

## ECTS CREDITS AND COURSE WORKLOAD

Event	Quantity	Duration (Hour)	Total Workload (Hour)
Final Exam	1	3	3
Class Hours (14 weeks)	16	3	48
Final Exam Preparation	1	40	40
Mid Term Exam Preparation	1	42	42
Further Study	14	2	28
Preliminary Study	14	2	28
Mid Term Exam 1	1	3	3
<b>Total Workload</b>			192
<b>Total Workload / 25.5 (s)</b>			7.53
<b>ECTS Credit of the Course</b>			8