



# Çanakkale Onsekiz Mart University

Education Information System

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## Course Information

### COURSE INFORMATION

Course Title	Code	Semester	L+U Hour	Credits	ECTS
Advanced Photometry	FZ5044		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>	Prof. Dr. Ahmet ERDEM
<b>Assistants</b>	
<b>Course Objectives</b>	Understanding photometric systems.
<b>Course Content</b>	Characteristic parameters of a photometric system and effects of bandwidths in photometric measurements. ,Using of multi-colour photometric system in determination of the interstellar extinction law.,Multi-Colour and Wide-Band Photometry: Comparison between the UBV and RGU systems-I.,Multi-Colour and Wide-Band Photometry: Comparison between the UBV and RGU systems-II.,Description of energy distribution in multi-colour wide band photometric systems.,Intermediate band photometric systems.,Narrow-band photometric systems, Combination of the intermediate and narrow-band photometric systems,Extensions of intermediate photometric system,Intermediate pass band systems in UV region.,Narrow pass band systems in IR region.,Correlation between physical parameters and photometric parameters of stars.,New techniques in photometry-I.,New techniques in photometry-II.,
<b>Course Learning Outcomes</b>	1) Have knowledge about photometric systems 2) Recognize new techniques in photometry. 3) Recognize characteristic parameters of photometric system

### 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

### WEEKLY COURSE CONTENT

Week	Topics	Teaching and Learning Methods and Techniques	Study Materials
1. Week	Characteristic parameters of a photometric system and effects of bandwidths in photometric measurements.	Oral lectures, homework, practice.	
2. Week	Using of multi-colour photometric system in determination of the interstellar extinction law.	Oral lectures, homework, practice.	

3. Week	Multi-Colour and Wide-Band Photometry: Comparison between the UBV and RGU systems-I.	Oral lectures, homework, practice.	
4. Week	Multi-Colour and Wide-Band Photometry: Comparison between the UBV and RGU systems-I.	Oral lectures, homework, practice.	
5. Week	Description of energy distribution in multi-colour wide band photometric systems.	Oral lectures, homework, practice.	
6. Week	Intermediate band photometric systems.	Oral lectures, homework, practice.	
7. Week	Narrow-band photometric systems.	Oral lectures, homework, practice.	
8. Week	Mid-term exam.	Written exam.	
9. Week	Combination of the intermediate and narrow-band photometric systems.	Oral lectures, homework, practice.	
10. Week	Extensions of intermediate photometric system.	Oral lectures, homework, practice.	
11. Week	Intermediate pass band systems in UV region	Oral lectures, homework, practice.	
12. Week	Narrow pass band systems in IR region.	Oral lectures, homework, practice.	
13. Week	Correlation between physical parameters and photometric parameters of stars.	Oral lectures, homework, practice.	
14. Week	New techniques in photometry-I.	Oral lectures, homework, practice.	
15. Week	New techniques in photometry-II	Oral lectures, homework, practice.	
16. Week	Final Exam	Written exam.	

## RESOURCES

Recommended Sources
-"Introduction to Astronomical Photometry", Edwin Budding and Osman Demircan, 2007, Cambridge University Press.
"Introduction to Astronomical Photometry", Golay, M., 1974, Reidel Publ. Comp.
-"Astronomical Photometry", Arne A. Henden and Kaitchuck, 1982, Van Nostrand Reinhold Company.

## ASSESSMENT

Measurement and Evaluation Methods and Techniques		
Mid-term exam (40 percent), Final exam (60 percent).		
In-Term Studies	Quantity	Percentage
Mid Term Exam 1	1	30
Assignment 1	1	10
<b>Total</b>	2	40
End-Term Studies	Quantity	Percentage

Final Exam	1	60
<b>Total</b>	<b>1</b>	<b>60</b>
<b>Contribution Of In-Term Studies To Overall Grade</b>		40
<b>End-Term Studies</b>		60
<b>Total</b>		<b>100</b>

## 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	4	5	0
PY2	3	3	3	0
PY3	5	5	4	0
PY4	5	5	4	0
PY5	5	4	5	0
PY6	5	5	4	0
PY7	5	5	4	0
PY8	5	5	4	0
PY9	4	3	4	0
PY10	3	3	3	0
PY11	3	3	3	0
PY12	5	5	4	0
PY13	4	3	4	0
PY14	4	3	4	0
PY15	5	5	4	0

\*DK = Course's Contribution.

	0	1	2	3	4	5
<b>Level of contribution</b>	None	Very Low	Low	Fair	High	Very High

## ECTS CREDITS AND COURSE WORKLOAD

Event	Quantity	Duration (Hour)	Total Workload (Hour)
Class Hours (14 weeks)	14	3	42
Final Exam Preparation	1	34	34
Final Exam	1	3	3
Mid Term Exam Preparation	1	32	32
Further Study	14	3	42
Laboratory	1	8	8
Mid Term Exam 1	1	3	3
Preliminary Study	14	2	28

<b>Total Workload</b>	192
<b>Total Workload / 25.5 (s)</b>	7.53
<b>ECTS Credit of the Course</b>	8

