



# Çanakkale Onsekiz Mart University

Education Information System

[DEGREE PROGRAMMES](#)[BOLOGNA](#)[THE INSTITUTION](#)[INFO FOR STUDENTS](#)You are here : [Home](#) [Master's Degree& Doctorate Degree](#) [Physics \(Master\)](#) [Plasma Physics](#) **[Course Information](#)**

## Course Information

### COURSE INFORMATION

Course Title	Code	Semester	L+U Hour	Credits	ECTS
Plasma Physics	FZ5047		3 + 0	3.0	7.5

<b>Prerequisites</b>	None
----------------------	------

<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. Hüseyin ÇAVUŞ
<b>Instructors</b>	Assoc. Prof. Dr. Hilal GÖKTAŞ Assoc. Prof. Dr. Hüseyin ÇAVUŞ
<b>Assistants</b>	
<b>Course Objectives</b>	In this course, the definition of plasma defined as one of the state of matter and its representations are investigated.
<b>Course Content</b>	The students who succeeded in this course; get the knowledge about the definition of plasma. get the knowledge about the representations of plasma. have the knowledge of plasma physics in order to investigate the medium and advanced level papers.
<b>Course Learning Outcomes</b>	1) get the knowledge about the definition of plasma. 2) have the knowledge about the representations of plasma. 3) investigate the medium and advanced level papers.

### WEEKLY COURSE CONTENT

Week	Topics	Teaching and Learning Methods and Techniques	Study Materials
1. Week	Definition of plasma	Oral lectures Homeworks Interactive discussions	
2. Week	Basic equations and conservation laws	Oral lectures Homeworks Interactive discussions	
3. Week	Basic equations and conservation laws	Oral lectures Homeworks Interactive discussions	

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

4. Week	Orbit theory	Oral lectures Homeworks Interactive discussions	
5. Week	Adiabatic invariants	Oral lectures Homeworks Interactive discussions	
6. Week	Plasma as a fluid	Oral lectures Homeworks Interactive discussions	
7. Week	Plasma as a fluid	Oral lectures Homeworks Interactive discussions	
8. Week	İdeal magnetohydrodynamics	Oral lectures Homeworks Interactive discussions	
9. Week	Waves in plasma	Oral lectures Homeworks Interactive discussions	
10. Week	Waves in plasma	Oral lectures Homeworks Interactive discussion	
11. Week	Wave-particle interaction	Oral lectures Homeworks Interactive discussions	
12. Week	Wave-wave interaction	Oral lectures Homeworks Interactive discussions	
13. Week	Wave-wave interaction	Oral lectures Homeworks Interactive discussions	
14. Week	Investigation of papers previously given to students	Oral lectures Homeworks Interactive discussions	
15. Week	General Review	Oral Lectures	
16. Week	Final Exam	Written Exam	

## RESOURCES

### Recommended Sources

F.F. Chen, 1974, Introduction to Plasma Physics, Plenum Press.

A.R. Choudhuri, 1998, The Physics of Fluids and Plasmas, Cambridge University Press

## ASSESSMENT

### Measurement and Evaluation Methods and Techniques

40% Mid Term Exam 60% Final Exam

## COURSE CATEGORY

Course Category	Percentage

Core Courses	% 100
--------------	-------

## CONTRIBUTION OF COURSE LEARNING OUTCOMES TO PROGRAMME OUTCOMES

Programme Outcomes	Contribution Level	DK1	DK2	DK3
<u>PY1</u>	3	3	3	3
<u>PY2</u>	5	5	5	5
<u>PY3</u>	4	4	4	4
<u>PY4</u>	4	4	4	4
<u>PY5</u>	3	3	3	3
<u>PY6</u>	4	4	4	4
<u>PY7</u>	4	4	4	4
<u>PY8</u>	1	1	1	1
<u>PY9</u>	3	3	3	3
<u>PY10</u>	3	4	2	3
<u>PY11</u>	3	3	3	3
<u>PY12</u>	4	3	5	4
<u>PY13</u>	4	4	4	4
<u>PY14</u>	4	4	4	4
<u>PY15</u>	5	5	5	5

\*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)
Presentation/Seminar	2	2	4
Assignment 1	1	10	10
Further Study	14	2	28
Final Exam Preparation	1	25	25
Class Hours (14 weeks)	14	3	42
Mid Term Exam Preparation	1	21	21
Preliminary Study	14	1	14
Mid Term Exam 1	1	3	3
Final Exam	1	3	3
Research&Project	2	16	32
Assignment 2	1	10	10
<b>Total Workload</b>			192
<b>Total Workload / 25.5 (s)</b>			7.53
<b>ECTS Credit of the Course</b>			8

