Course Information

COURSE INFORMATION

Course Title	Code	Semester	L+U Hour	Credits	ECTS
Physics II Laboratory (Electricity and Magnetism)	FZK118	2. Semester	0 + 4	2.0	4.0

Prerequisites	None

Language of Instruction	Turkish
Course Level	Bacheclor's Degree (First Cycle)
Course Type	Compulsory
Mode of delivery	Face to face
Course Coordinator	Prof. Dr. Ahmet ERDEM
Instructors	Prof. Dr. Ahmet ERDEM
Assistants	
Course Objectives	In this course, basic laws and concepts of electric and magnetism will be studied experimentally in the laboratory, knowledge attained in the theoretical course will be put to use.
Course Content	The topics covered in this course include metric systems, measurements, laboratory study methods, capacitors, magnetism.
Course Learning Outcomes	1) Prove basic physics laws experimentally. 2) Adopt skills in usingvarious tools in physical experiments 3) Collect the data in an experimental setup and interpret results 4) To do individual experiments 5) To do the work with a group

WEEKLY COURSE CONTENT

Week	Topics	Teaching and Learning Methods and Techniques	Study Materials
1. Week	Laboratory study methods: Units	Lecture, Laboratory, Group Study, Practise	
2. Week	Laboratory study methods: Metric systems and their applications	Lecture, Laboratory, Group Study, Practise	
3. Week	Laboratory study methods: Uncertainties in measurements, meaningful numbers	Lecture, Laboratory, Group Study, Practise	
4. Week	Laboratory study methods: Uncertainty calculations, per cent error,	Lecture,	

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
- 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

	normalization, some statistical methods	Laboratory, Group Study, Practise	
5. Week	Laboratory study methods: Report preparation technique, graphics plotting	Lecture, Laboratory, Group Study, Practise	
6. Week	Ohm Principle Application Experiment	Lecture, Laboratory, Group Study, Practise	
7. Week	Equipotential Surfaces	Lecture, Laboratory, Group Study, Practise	
8. Week	Midterm-exam	Exam	
9. Week	Preparation for experiment: Capacitors and their work principles	Lecture, Laboratory, Group Study, Practise	
10. Week	Connections of Capacitors	Lecture, Laboratory, Group Study, Practise	
11. Week	Resistor and Capacitor Network Experiment	Lecture, Laboratory, Group Study, Practise	
12. Week	Preparation for experiment: Magnetism	Lecture, Laboratory, Group Study, Practise	
13. Week	Biot-Savart Principle	Lecture, Laboratory, Group Study, Practise	
14. Week	Magnetic Force Measurement Experiment	Lecture, Laboratory, Group Study, Practise	
15. Week	Final exam	Written exam	
16. Week	Final Exam	Written exam	

RESOURCES

Recommended Sources
Physics II Laboratory (Electrics and Magnetism) Sheets, ÇOMÜ Pres.
Serway, R. A. : 1992, Physics For Scientists&Engineers with Modern Physics, Third edition, Saunders Golden Sunburst Series, Saunders College Publishing.
Halliday, D., Robert, R. And Walker, J.: 1993, Fundamentals of Physics, Fourth edition, John Wiley & Sons, Inc.

ASSESSMENT

Measurement and Evaluation Methods and Techniques		
Midterm exam, Final exam, To present report, Quiz		
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
Core Courses	% 100

CONTRIBUTION OF COURSE LEARNING OUTCOMES TO PROGRAMME OUTCOMES

Programme Outcomes	Contribution Level	DK1	DK2	DK3	DK4	DK5
PY1	4	4	4	4	4	4
PY2	4	4	4	4	4	4
PY3	4	4	4	4	4	4
PY4	5	5	5	5	5	5
PY5	4	4	4	4	4	4
PY6	4	4	4	4	4	4
PY7	5	5	5	5	5	5
PY8	4	4	4	4	4	4
PY9	4	4	4	4	4	4
PY10	4	4	4	4	4	4
PY11	3	3	3	3	3	3
PY12	4	4	4	4	4	4
PY13	4	4	4	4	4	4
PY14	4	4	4	4	4	4
PY15	3	3	3	3	3	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
Fieldwork	6	4	24
Final Exam Preparation	1	3	3
Mid Term Exam Preparation	1	3	3
Mid Term Exam 1	1	2	2
Final Exam	1	2	2
		Total Workload	90
		Total Workload / 25.5 (s)	3.53
		ECTS Credit of the Course	4