COURSE DESCRIPTION	
Course code and title	PHYS104,PHYSICS II
Course Semester	2
Course Content	Electric fields, Continuous charge distribution and Electric fields, Gauss Law and applications, Electric Potential, Electric Potential of Continuous charge distribution, Capacitance and Dielectric , Current and Resistance, electromagnetic force, Direct current circuits, Magnetic Fields , Magnetic field sources, Electromagnetic induction, Faraday's Law and induction, Alternating Current Circuits , Alternating Current Circuits: AC sources, resistors, capacitors, inductors at ac circuits , ac circuits in series, power, Electromagnetic Waves
Recommended or Required Reading	Physics for Scientists and Engineers, R.Serway & John W. Jewett Thomson Brooks/Cole © 2004 6th Edition.
Recommended or Required Reading	Young Freedman University Physics 13th Edition. Fundamentals of Physics [10th Edition] Halliday & Resnick.
Credits of Course (ECTS)	6
Prerequisites	Lectures must be attended by students
Type of Course	Basic Science Education
Language of Instruction	English
Purpose and Object of the Course	To examine basic electrics and magnetism phenomena in the nature and learning of basic concepts. To gain the basic discipline of algorithm development for analytical thinking and problem solving.
Learnıng Outcomes Of The Course Unıt	Students learn basic electrical knowledge. Students can think critically, appropriately and analytically in everyday life. Students can apply the principles of physics daily. Learn the concepts of capacitor, capacitance, coil, and inductance. Learns electric and magnetic forces. Understand and apply Newton's laws Learn mass gravity Learn vibration motion Learn the concepts of work and energy.
Planned Learning Activities and Teaching Methods	Face to face
Course Per Week	1.Week: Electric fields 2. Week : Continuous charge distribution and Electric fields 3. Week : Gauss Law and applications 4.Week: Electric Potential 5. Week :Electric Potential of Continuous charge distribution 6. Week :Capacitance and Dielectric 7. Week :Current and Resistance, electromagnetic force 8. Week : Mid term exam, Direct current circuits 9. Week :Magnetic Fields 10. Week: Magnetic field sources 11. Week: Electromagnetic induction 12. Week: Faraday's Law and induction 13. Week: Alternating Current Circuits 14. Week:Alternating Current Circuits: AC sources, resistors, capacitors, inductors at ac circuits , ac circuits in series, power 15. Week : Electromagnetic Waves 14. Week: Final
Workload	Theoretical Study Hours of Course Per Week: 4hours Practising Hours of Course Per Week:0 Reading:2 hours Searching in Internet and Library:2 hours Designing and Applying Materials:0 Preparing Reports: 0 Preparing Presentation:0 Presentation:0 Mid-Term and Studying for Mid-Term: 10 hours Final and Studying for Final: 10 hours

Assessment Methods And Criteria

	Number	Total contribution (%)
Mid-terms	1	40
Assignment	0	
Exercise	0	
Projects	0	
Practice	0	
Quiz	0	
Contribution of In-term Studies to Overall Grade (%)		
Contribution of Final Examination to Overall Grade (%)		60
Attendance		0

1

Efficiency

Activities	Total number of weeks	Time (Weekly)	Total efficiency at the end of the semester
Theoretical Study Hours of Course Per Week	14	4	56
Practicing Hours of Course Per Week	0	0	0
Reading	14	2	28
Searching in Internet and Library	14	2	28
Designing and Materials, Applying	0	0	0
Preparing Reports	0	0	0
Preparing Presentation	0	0	0
Presentation	0	0	0
Mid-Term and Studying for Mid-Term	1	10	10
Final and Studying for Final	1	10	10
Other	5	2	10
TOTAL WORKLOAD			142
TOTAL WORKLOAD/ 25			5.68
ECTS of Course			6

Course's Contribution To Program

No	PROGRAM LEARNING OUTCOMES	1	2	3	4	5
1	Has necessary theoretical and practical knowledge in mathematics, life sciences, computation and computer engineering fields				x	
2	Defines engineering problems, comes up with feasible analytical approaches for the solution, selects and applies appropriate modeling methods and ICT techniques				x	
3	Analyzes a system, system component or process and design it under realistic constraints to meet the requirements; it implements modern design methods in this direction.				x	
4	Has access to information and research resources for this purpose, use databases and other				x	

	sources of information.
Name of Lecturer(s) and E-mail(s) of Lecturer(s)	Prof. Dr. Haluk KORALAY koralay@gazi.edu.tr