



İZMİR UNIVERSITY OF ECONOMICS

**School of Applied Management Sciences
Gastronomy and Culinary Arts**

PHYS 100 - General Physics I

COURSE INTRODUCTION AND APPLICATION INFORMATION

Course Name	General Physics I
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Code	Semester	Theory (hour/week)	Application/Laboratory (hour/week)	Local Credits	ECTS
PHYS 100	Fall/Spring	2	2	3	6

Prerequisites	None
Course Language	English
Course Type	Service Course
Course Level	First Cycle
Mode of Delivery	-
	* Discussion * Problem Solving * Application: Experiment / Laboratory / Workshop * Lecture / Presentation
Course Coordinator	* <u>Prof. Dr. Uğur TIRNAKLI</u>
Course Lecturer(s)	* <u>Prof. Dr. Göktuğ KARPAT</u> * <u>Prof. Dr. Uğur TIRNAKLI</u>
Course Assistants	* <u>Araş. Gör. Ali Ulvi NOHUTÇU</u>

Course Objectives	The purpose of this course is to teach the fundamental laws of mechanics and introduce students to the basic applications of these laws.
Course Learning Outcomes	The students who succeeded in this course; * determine the motion of objects in one, two and three dimensions using the laws of kinematics.

	<ul style="list-style-type: none"> * use Newton's laws to solve mechanics problems. * calculate the kinetic and potential energies of a given mechanical system. * analyze the dynamics of collisions and explosions using the concept of momentum. * discuss the rotations of rigid bodies and their dynamics. * describe the dynamics of objects in circular and periodic motion. * use experimental setups to collect and analyze data.
Course Description	In this course, we will discuss the subjects of motion along a straight line, motion in two and three dimensions, Newton's laws, work and kinetic energy, potential energy and conservation of energy, momentum, collisions, dynamics of rotations, gravitation and periodic motion.

Course Category	Core Courses	
	Major Area Courses	
	Supportive Courses	
	Media and Management Skills Courses	
	Transferable Skill Courses	

WEEKLY SUBJECTS AND RELATED PREPARATION STUDIES

Week16	Subjects	Related Materials
1	Introduction, measurement, estimating	Douglas C. Giancoli, Physics for Scientists and Engineers with Modern Physics and Mastering Physics, 4th edn. (Pearson, 2008). Chapter 1. ISBN: 9780136139225
2	Kinematics in one dimension	Douglas C. Giancoli, Physics for Scientists and Engineers with Modern Physics and Mastering Physics, 4th edn. (Pearson, 2008). Chapter 2. ISBN: 9780136139225
3	Kinematics in two dimension; vectors	Douglas C. Giancoli, Physics for Scientists and Engineers with Modern Physics and Mastering Physics, 4th edn.

(Pearson, 2008). Chapter 3. ISBN:

9780136139225

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4	Dynamics: Newton's laws of motion	Douglas C. Giancoli, Physics for Scientists and Engineers with Modern Physics and Mastering Physics, 4th edn. (Pearson, 2008). Chapter 4. ISBN: 9780136139225
5	Applications of Newton's laws	Douglas C. Giancoli, Physics for Scientists and Engineers with Modern Physics and Mastering Physics, 4th edn. (Pearson, 2008). Chapter 5. ISBN: 9780136139225
6	Applications of Newton's laws	Douglas C. Giancoli, Physics for Scientists and Engineers with Modern Physics and Mastering Physics, 4th edn. (Pearson, 2008). Chapter 5. ISBN: 9780136139225
7	Gravitation	Douglas C. Giancoli, Physics for Scientists and Engineers with Modern Physics and Mastering Physics, 4th edn. (Pearson, 2008). Chapter 6. ISBN: 9780136139225
8	Review of the covered topics, Midterm exam	
9	Work and energy	Douglas C. Giancoli, Physics for Scientists and Engineers with Modern Physics and Mastering Physics, 4th edn. (Pearson, 2008). Chapter 7. ISBN: 9780136139225
10	Conservation of energy	Douglas C. Giancoli, Physics for Scientists and Engineers with Modern Physics and Mastering Physics, 4th edn. (Pearson, 2008). Chapter 8. ISBN: 9780136139225
11	Linear momentum and collisions	Douglas C. Giancoli, Physics for Scientists and Engineers with Modern Physics and Mastering Physics, 4th edn.

(Pearson, 2008). Chapter 9. ISBN:

9780136139225

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12	Linear momentum and collisions	Douglas C. Giancoli, Physics for Scientists and Engineers with Modern Physics and Mastering Physics, 4th edn. (Pearson, 2008). Chapter 9. ISBN: 9780136139225
13	Rotational motion	Douglas C. Giancoli, Physics for Scientists and Engineers with Modern Physics and Mastering Physics, 4th edn. (Pearson, 2008). Chapter 10. ISBN: 9780136139225
14	Angular momentum	Douglas C. Giancoli, Physics for Scientists and Engineers with Modern Physics and Mastering Physics, 4th edn. (Pearson, 2008). Chapter 11. ISBN: 9780136139225
15	Semester review	
16	Final exam	

SOURCES

Course Notes / Textbooks	Douglas C. Giancoli, Physics for Scientists and Engineers with Modern Physics and Mastering Physics, 4th edn. (Pearson, 2008). ISBN: 9780136139225
Suggested Readings/Materials	

EVALUATION SYSTEM

Semester Activities	Number	Percentage of Grade
Participation	-	-
Laboratory / Application	1	20
Field Work	-	-
Quiz/Studio Critic	-	-
Portfolio	-	-
Homework Assignment	1	10
Presentation/Jury	-	-
Project	-	-
Seminar/Workshop	-	-
Oral Exam	-	-
Midterm	1	30
Final	1	40
Total	4	100

WEIGHTING OF SEMESTER ACTIVITIES ON THE FINAL GRADE	3	60
WEIGHTING OF END-OF-SEMESTER ACTIVITIES ON THE FINAL GRADE	1	40
Total	4	100

ECTS / WORKLOAD TABLE

Semester Activities	Number	Duration (Hours)	Total Workload
Course Hours (Including Exam Week: 16 x Total Hours)	16	2	32
Laboratory / Application Hours	16	2	32
Study Hours Out of Class	14	3	42
Field Work	-	-	-
Quiz / Studio Critique	-	-	-
Portfolio	-	-	-
Homework / Assignment	1	1	1
Presentation / Jury	-	-	-
Project	-	-	-
Seminar / Workshop	-	-	-
Oral Exam	-	-	-
Midterm	1	28	28
Final	1	36	36
		Total Workload	180

THE RELATIONSHIP BETWEEN COURSE LEARNING OUTCOMES AND PROGRAM QUALIFICATIONS

#	Program Qualifications / Outcomes	* Level of Contribution				
		1	2	3	4	5
1	Successfully applies theoretical and practical knowledge and skills in Gastronomy and Culinary Arts					
2	Carries best practices in terms of work and food security, safety and hygiene in food production					
3	Appreciates, evaluates and makes decisions regarding to visual, textual and nutritional data with respect to food production and presentation					
4	Recognizes and evaluates the impact of gastronomy on culture and society					
5	Assumes responsibility for solving complex problems that may occur in the field of Gastronomy and Culinary Arts, both individually and as a team member					
6	Evaluates the knowledge and skills acquired in the field of Gastronomy and Culinary Arts with a critical approach and effectively communicate their ideas and suggestions for solutions in written and oral form.					
7	Possesses necessary knowledge and skills in relevant fields such as gastronomy, design, law and management and effectively apply them to the practice of Culinary Arts					
8	Uses the technological tools related to Gastronomy and Culinary Arts effectively					
9	Updates and improve the knowledge, skills and competencies related to Gastronomy and Culinary Arts with lifelong learning awareness and sustainability with an ethical approach					
10	Collects data in the areas of Gastronomy and Culinary Arts and communicate with colleagues in a foreign language. (European Language Portfolio Global Scale", Level B1)					
11	Speaks a second foreign at a medium level of fluency efficiently					
12	Relates the knowledge gained through the history of humanity to the field of expertise					

*1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest