Fizik Bölümü / PHYSICS /

Course Code	Course Name	Teorical	Practice	Laboratory	Credits	ECTS
FZK-4009	Nanoscience and Nanotechnology in Physics	3.00	0.00	0.00	3.00	6.00

Course Detail

Course Language	:	Turkish
Qualification Degree	:	Bachelor
Course Type	:	Optional
Preconditions	:	Not
Objectives of the Course	:	this course aims to give students knowledge about the advance of science and technology, applications and developments in nanoscience and nanotechnology, carbon in nanoscience and nanotechnology, clusturs in nanoscience and nanotechnology, measurement and analysis methods in nanoscience and nanotechnology
Course Contents	:	The advance of science and technology,The advance of science and technology The advance of science and technology,Applications and developments in nanoscience and nanotechnology,Applications and developments in nanoscience and nanotechnology,Applications and developments in nanoscience and nanotechnology
Recommended or Required Reading	:	Nanobilim ve Nanoteknoloji', Şakir ERKOÇ, ODTÜ Geliştirme Vakfı Yayıncılık, 9944344289 Seçilmiş makaleler 'Introduction to Nanoscience and Nanotechnology' Chris Binns, Wiley, 0471776475 (ISBN-13: 978-0471776475), 2010
Planned Learning Activities and Teaching Methods	:	Written exam, homework and presentations. (60% Final, 30% midterm, 10% homework and presentation)
Recommended Optional Programme Components	:	Knowledge of the fundamental physics courses is important.
Course Instructors	:	Prof. Dr. Kıvanç Sel
Instructor's Assistants	:	Assoc. Prof. Dr. Kıvanç SEL
Presentation Of Course	:	Face to face

Course Outcomes

Upon the completion of this course a student :

1 Relate the obtained information with technology and industry.

2 Identify the problems that must be solved in future

3 Relate the obtained knowledge with technology and industry

Preconditions

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Weekly Contents

	Teorical	Practice	Laboratory	Preparation Info	Teaching Methods
1.Week	*The advance of science and technology				*Lecture and recitation
2.Week	*The advance of science and technology				*Lecture and recitation
3.Week	*The advance of science and technology				*Lecture and recitation
4.Week	*The advance of science and technology				*Lecture and recitation
5.Week	*Applications and developments in nanoscience and nanotechnology				*Lecture and recitation
6.Week	*Applications and developments in nanoscience and nanotechnology				*Lecture and recitation
7.Week	*Applications and developments in nanoscience and nanotechnology				*Lecture and recitation
8.Week	*Applications and developments in nanoscience and nanotechnology				*Lecture and recitation
9.Week	*Carbon in nanoscience and nanotechnology				*Lecture and recitation
10.Week	*Carbon in nanoscience and nanotechnology				*Lecture and recitation
11.Week	*Clusturs in nanoscience and nanotechnology				*Lecture and recitation
12.Week	*Clusturs in nanoscience and nanotechnology				*Lecture and recitation
13.Week	*Measurement and analysis methods in nanoscience and nanotechnology				*Lecture and recitation
14.Week	*Measurement and analysis methods in nanoscience and nanotechnology				*Lecture and recitation

Assesment Methods %

1 Mid Term Exam 1 : 40.000

2 Final : 60.000

ECTS Workload

Activities	Count	Time(Hour)	Sum of Workload
Vize	1	2.00	2.00
Final	1	2.00	2.00
Attending lectures	14	3.00	42.00
Individual study before lecture	14	3.00	42.00
Individual study after lecture	14	4.00	56.00
Preparation for midterm	1	20.00	20.00
Preparation for quizzes	1	20.00	20.00
		Total :	184.00
		Sum of Workload / 30 (Hour) :	6
		ECTS :	6.00

Program And OutcomeRelation

	P.O. 1	P.O. 2	P.O. 3	P.O. 4	P.O. 5	P.O. 6	P.O. 7	P.O. 8	P.O. 9	P.O. 10	P.O. 11	P.O. 12	P.O. 13	P.O. 14	P.O. 15	P.O. 16	P.O. 17	P.O. 18	P.O. 19	P.O. 20	P.O. 21	P.O. 22	P.O. 23	P.O. 24
L.O. 1	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
L.O. 2	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
L.O. 3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ders/Program Çıktıları İlişkisi

P.O. 1	P.O. 2	P.O. 3	P.O. 4	P.O. 5	P.O. 6	P.O. 7	P.O. 8	P.O. 9	P.O. 10	P.O. 11	P.O. 12	P.O. 13	P.O. 14	P.O. 15	P.O. 16	P.O. 17	P.O. 18	P.O. 19	P.O. 20	P.O. 21	P.O. 22	P.O. 23	P.O. 24	P.O. 2
3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0