Fizik Bölümü / PHYSICS /

Course Code	Course Name	Teorical	Practice	Laboratory	Credits	ECTS
FZK-1006	Creative Thinking and Entrepreneurship in Physics	2.00	0.00	0.00	0.00	2.00

Course Detail

Course Language	:	Turkish
Qualification Degree	:	Bachelor
Course Type	:	Compulsory
Preconditions	:	Not
Objectives of the Course	:	In this course, basic concepts and exemplary memberships on creative thinking and innovation in physics will be discussed.
Course Contents	:	The content of the course includes basic physics concepts, creative thinking and entrepreneurship concepts and applications.
Recommended or Required Reading	:	1- İnovasyon: Girişimcilik Üzerine Yaratıcı Çalışmalar, Seelig, T. L. (Çev. Nuray Önoğlu), 2017, Kuraldışı Yayınları. 2- Yaratıcı Düşünce, Sungur, N., ISBN 975-503-060-3, Vikitap Yayınevi. 3- Girişimcilik ve İnovasyon Yönetimi, Ed. Çatı, K., Nobel Akademik Yayıncılık. 4- Girişimcilik, Başer, E., Nobel Akademik Yayıncılık. 5- Çok Uluslu Ortamlarda Girişimcilik Eğitimi: Kamu-Üniversite-Sanayi İş Birliği Kapsamında Uygulamalı Model, Nobel Akademik Yayıncılık.
Planned Learning Activities and Teaching Methods	:	Oral presentation, practice, homework, discussion.
Recommended Optional Programme Components	:	Reading other resources on entrepreneurship and creative thinking and examining sample applications.
Instructors	:	Prof. Dr. İsmail Tarhan
Instructor's Assistants	:	None
Presentation Of Course	:	Face to face

Course Outcomes

Upon the completion of this course a student :

1 Explains the concepts of thought, creative thinking and innovation by giving examples.

2 Have knowledge on creative thinking and innovation practices.

3 Uses physics knowledge in the context of creative thinking and entrepreneurship.

4 Gains the ability to practice creative thinking and innovation in national and international norms.

Preconditions

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Weekly Contents

	Teorical	Practice	Laboratory	Preparation Info	Teaching Methods
1.Week	*Thought, creative thinking and innovation concepts.				
2.Week	*Creative thinking and its features with examples.				
3.Week	*Entrepreneurship and features with examples				
4.Week	*The relationship of creative thinking and entrepreneurship with physics				
5.Week	*National examples on creative thinking and innovation.				
6.Week	*International examples of creative thinking and innovation.				
7.Week	*Some individual work on creative thinking and entrepreneurship.				
8.Week	*Creative thinking and examples in physics.				
9.Week	*Technology relationship of creative thinking innovation.				
10.Week	*The effects of some concepts in physics and other science fields on social welfare in the context of creative thinking and innovation.				
11.Week	*The effects of some concepts in physics and other science fields on social welfare in the context of creative thinking and innovation.				
12.Week	*Creative thinking and innovation studies with examples in developing and developed countries.				
13.Week	*Creative thinking and innovation studies with examples in developing and developed countries.				
14.Week	*Creative thinking and entrepreneurship studies in Turkey, examples and their effects on development.				

Assesment Methods %

1 Vize : 40.000

3 Final : 60.000

ECTS Workload

Activities	Count	Time(Hour)	Sum of Workload
Ödev	3	3.00	9.00
Proje	1	10.00	10.00
Attending lectures	14	0.00	0.00
Individual study before lecture	14	1.00	14.00
Individual study after lecture	14	1.00	14.00
Research presentation	1	1.00	1.00
		Total :	48.00
		Sum of Workload / 30 (Hour) :	2
		ECTS :	2.00

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	4	4	5	4	3	3	4	4	3	3	4	4	4	3	4	4	3	3	3	4	3	3
L.O. 2	4	3	4	4	5	3	4	3	3	3	3	4	3	4	2	4	3	3	3	4	3	4	3	2
L.O. 3	4	3	5	5	3	4	3	4	5	4	3	4	3	5	5	3	5	4	3	4	4	3	4	3
L.O. 4	4	3	5	5	4	4	3	5	4	4	4	3	3	5	4	4	5	4	4	5	5	3	4	3

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
4	3	5	5	4	4	3	4	4	4	3	4	3	5	4	4	4	4	3	4	4	4	4	3	4