

BALIKESİR UNIVERSITY
NECATİBEY FACULTY OF EDUCATION
UNIVERSITY ELECTIVE COURSE PROPOSAL FORM

Department / Program	Department of Mathematics and Science Education / Physics Education									
Course Title	The Importance and Effects of Radiation in Daily Life									
Semester	Fall	X		Spring	X					
Language	Turkish	X		English						
Credits	Theory	2		Application	0		Total	2		
ECTS	3									
Type of Program	Formal Education					Face to face				
Course Objectives	The purpose of this course is to teach students the concepts of radiation and to explain the sources and biological effects of radiation.									
Course Content	Radioactive Atom, Types of Radiation, Biological Effects of Radiation, Nuclear Power Plants, Ways of Protection from Radiation									
Course Prerequisites	There is no prerequisite for the course.									
Instructor	Prof. Dr. Yavuz EGE				Mail : yege@balikesir.edu.tr					
Course Assistants	-				Mail : -					
Course Internship Status	The course has no internship.									
Course Resources	1. Modern Fizik (Bekir KARAOĞLU) 2. Çevremizdeki Fizik (Naci BALKAN)									
Course Category	Science (100%)									
Planned Learning Activities and Methods	Learning by hearing, Information / Narration (presentation) method									
Course Evaluation Criteria			Course ECTS Calculation Content							
Semester Studies	Quantity	Contribution (%)	Activity		Quantity	Duration	Total Work Load (Hour)			
Mid-terms	1	40	Course Duration		14	2	28			
Short Exam			Out of Class Work Duration		14	1	14			
Homework			Midterm Exams		1	20	20			
Attendance			Final Exam		1	20	20			
Practice			Total Workload: 82							
Project			ECTS Credits: 3							
Final Exam	1	60								
Learning Outcomes	Knows the concepts related to radiation and explains the ways to protect against radiation.									
Course Topics										
Week	Topic				Pre-Study		Materials			
1	Atomic Structure and Radioactive Atom				Pre-Reading		Lecture Notes and Resources			
2	Radioactive Series				Pre-Reading		Lecture Notes and Resources			
3	Radiation and Radiation Sources				Pre-Reading		Lecture Notes and Resources			

4	Types of Radiation	Pre-Reading	Lecture Notes and Resources
5	The Place of Radiation in Our Lives	Pre-Reading	Lecture Notes and Resources
6	Biological Effects of Ionizing Radiation	Pre-Reading	Lecture Notes and Resources
7	Biological Effects of Non-Ionizing Radiation	Pre-Reading	Lecture Notes and Resources
8	Midterm Exam	Pre-Reading	Lecture Notes and Resources
9	Electromagnetic Waves	Pre-Reading	Lecture Notes and Resources
10	Operation of Nuclear Power Plants	Pre-Reading	Lecture Notes and Resources
11	Accidents in Nuclear Power Plants	Pre-Reading	Lecture Notes and Resources
12	Waste in Nuclear Power Plants	Pre-Reading	Lecture Notes and Resources
13	Ways to Protect Yourself from Radiation	Pre-Reading	Lecture Notes and Resources
14	International Organizations Related to Radiation	Pre-Reading	Lecture Notes and Resources
15	Symbols Representing Radiation	Pre-Reading	Lecture Notes and Resources

Contribution of Learning Outcomes to Program Outcomes

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