

Course Information								
Course Code	T	P	L	C	ECTS	Type C/E	Language TR/ENG etc.	Year/Semester
FİZ1003	2	0	0	1	3	C	TR	1/Fall
Course Name (Turkish)	Laboratuvar Tekniği ve Kaynak Tarama							
Course Name (English)	Laboratory Technique and Source Scanning							

Unit/Program	Physics Department/Undergraduate Program			
Course Prerequisite	There are no prerequisites			
Course Objectives	To ensure the discipline and safety of working in the laboratory, to recognize laboratory equipment and equipment and to learn the device features, to learn to scan resources by using library automation in order to develop resource scanning skills, which is the first step necessary for scientific studies, and to gain the ability to combine and interpret information about the desired subject, and to turn the information and results obtained into a scientific report.			
Course Outline	This course; Laboratory working principles, laboratory safety, laboratory equipment and equipment, Planning an experiment, setting up the setups, keeping an experiment notebook and writing a report, general evaluation, Basic concepts related to research, research stages, problem and hypothesis selection, library use and literature review, critical thinking in research, control of variables, research Prepare the report.			
Textbook/ Material / Resources	1. Laboratory Technique. Cem Karagözlü, Necati Akbulut. Ege University Faculty of Agriculture 2. Kaptan, S. (1998) Scientific Research and Statistical Techniques, Ankara Science Book.			
Internship Status				
Course Precedents				
University Name	Program Name	Course Name	T-P-L-C; ECTS	Type
Uludag University	Education Faculty	Source Scanning and Report Writing	1-2-0-2-4	C
Pamukkale University	Education Faculty	Source Scan and Report	1-2-0-2-3	C
The instructor who proposed the course ( Title, Name and Surname)			Signature	
Instructors who can teach the course (Title, Name and Surname)			Signature	

**Academic justification for the opening of the course?** (The effect of course outcomes on program outcomes, etc.)

**Brief explanation of the course** (theoretical lecture, applications, laboratory, studio, off-campus activity, using software, etc.)

**External Stakeholder Opinions About the Course** (It is expected that the opinions to be obtained from the business world that will employ your graduates or from real or legal persons outside the University who have expertise on the subject of the course will be specified. Proof documents must be attached to this form.)

**Stakeholder Name** **Opinion** (It should be given as a summary, it should not exceed two lines.)


Weekly Course Content Distribution		
Week	Theory	Application/Laboratory
1	Laboratory Safety and First Aid	
2	Laboratory Accidents and First Aid	
3	Laboratory Instruments and Equipment	
4	Scientific Method and Stages	
5	Determining the Research Topic / Problem - Solve the Research Problem Selection Criteria	
6	Source Scan	
7	Effective use of the library and computers to access resources. Major databases that can be used in the scientific field.	
8	Ethics in Scientific Research	
9	Perform sample source scans	
10	Midterm Exam	
11	Content in the Preparation of Scientific Research Reports	
12	Indirect citation In-Text Citations	
13	Method Section Results and Interpretation Section	
14	Discussion – Conclusion and Recommendations Section	
15	Finale	
16		

Assessment			
Evaluation Criteria	Activity	Custom	Contribution to Success Grade (%)
	Midterm Exams	1	40
	Quizzes		
	Assignments		
	Projects		
	Term Paper		
	Laboratory		
	Other		
	Final Exam	1	60
	Sum:		100
Remarks			

Content Design and Subject Weight (%)	Mathematics and Basic Sciences	100
	Engineering Sciences	
	Social Sciences	
	Health Sciences	
	Educational Sciences	
	Culture and Art Sciences	
	Design Information	

Workload (ECTS) Calculation			
Events	Number	Duration (Hours)	Total workload (Hours)
Fieldwork			
Midterm Exam Application	1	1	1
Self-Study (including pre-class and exam preparation)	1	2	2
Make-up Exam	1	1	1
Experiment and Observation			
Class Participation (Theory)	14	2	28
Homework			
Final Exam Practice	1	1	1
Laboratory			
Article Review			
Writing an Article			
Reading	14	1	14
Case Study			
Performance			
Problem Solution			
Project Preparation			
Project Submission			
Quiz			
Report Preparation			
Submitting Reports			
Role/Drama Work			
Seminar			
Oral Exam			
Team/Group Work	14	1	14
Argument	14	1	14
Application/Practice			
Other			
TOTAL WORKLOAD:			75
ECTS CREDITS OF THE COURSE: (The number obtained as a result of Total Workload/25 is calculated by rounding to the whole number.)			3

The Relationship Between Course Learning Outcomes and Program Outcomes												
		Program Outcomes (PO)										
		1	2	3	4	5	6	7	8	9	10	11
Learning Outcomes (LO) (Course Outcomes)												
1	Learns the rules to be followed while working in the laboratory and takes the necessary precautions	5	5	5	1	1	1	5	4	3	1	1
2	Interpret the error elements that will be reflected in the measurement results	5	5	5	3	1	1	5	3	3	1	1
3	Learns the methods of accessing the information required in the experiment and analysis process effectively	5	5	5	5	2	1	5	4	5	1	1

**Organizer:** Assist. U.S. Seçil NİKSARLIOĞLU  
**Preparation Date:** 20.05.2024