Course Title	Code	Semester	Theoretical (hours/week)	Practice (hours/week)	Laboratory (hours/week)	ECTS
Research methods and publication ethics in physiotherapy	**FTR503**	**1.Semester**	**4**	**4**	**0**	**10**

Prerequisites	-
Course Language	Turkish
Course Type	Compulsory
Teaching Methods	Expression Report Preparation and / or Presentation Project Design / Management
Instructor(s)	
Course Objective	To give general information about research, research stages, research ethics, to provide awareness and sensitivity to postgraduate students, to conduct research in accordance with publication ethics in this context.
Course Learning Outcomes	Students who complete the course; 1- Know the concept and stages of research, determine the type of research according to the purpose of the research, knows the sampling methods and how to determine the appropriate sample size, 2- Knows the sources of error in research and prevention methods. Scientific research plans and reports. The student will be able to define the concepts of research and publication ethics, the researcher's responsibilities for ethics and validity of a research. Will be able to define ethical requirements related to clinical trials, non-invasive clinical trials and research subjects (human / animal) in animal experiments, 3- The research ethic committee evaluates the research ethics committees in accordance with the discipline of research, the project will be aware of the requirements to be considered in the application files and apply (especially the subject of informed consent). Will be able to know national and international ethicolegal regulations related to research ethics and publication ethics. Will be able to fulfill the requirements of publication ethics in the process of converting research into publication.
References	-Health Research Methodology, A Guide for Training in Research Methods, World Health Organization, 2001 Altman Douglas, Practical Statistics for Medical Research, 1992. Sümbüloğlu Vildan, Sümbüloğlu Kadir. Sağlık Bilimlerinde Araştırma Yöntemleri Ankara 2013 Sümbüloğlu Vildan, Sümbüloğlu Kadir. Klinik ve Saha Araştırmalarında Örnekleme Yöntemleri ve Örneklem Büyüklüğü, Ankara 2005 Özdamar Kazım. Modern Bilimsel Araştırma Yöntemleri, Ankara 2013 The Ethics of Research Involving Human Subjects, Editor: Vanderpool HY, 1996, University publishing Group, Inc. USA. Büken NÖ, Yegenoglu S., ?Physician-Industry Relationships and Promotion Ethics in Turkey.? Clinical Research and Regulatory Affairs, Volume 20, Issue 4, pages: 379-389 (2003). Büken NÖ. ?Klinik Araştırma Etik Kurulları?(Clinical Research Ethics Committees), Sendrom, 20 (3?4): 61?70, Mart-Nisan 2008. Büken NÖ. Büken E. ?Plasebo ve Plasebo Etkisi?, Sendrom, 16(3): 98-103 (2004).

WEEKLY COURSE TOPICS

Weeks	DISCUSSION TOPICS TO BE PROCESSED
1.	Introduction to health research and basic concepts, universe, sample, dependent and independent variable, etc. Data types, Data collection methods
2.	Types of research in the field of health -Observational and experimental studies (clinical trials) -Student schemes (parallel, cross, factorial designs) -Systematical reviews and meta-analysis
3.	Research planning and stages Determination of research topic, determination of hypotheses, literature review, determination of appropriate statistical method, interpretation and reporting of results
4.	Sampling methods and determination of appropriate sample size
5.	Sources of error in research and prevention methods - Bias and bias sources, prevention of bias (randomness, blanking, use of control group, etc.) - Measurement errors (random, systematic, proportional error)
6.	Preparation of a scientific research plan-Reporting of scientific studies and frequently used checklists (CONSORT, PRISMA, etc.)
7.	Scientific researches and research methods in the article, biomedical research, researches according to the purpose and methods, the historical and ethical cornerstones of research ethics, the concept of research ethics, scientific and ethical methods in research and basic principles of research ethics.
8.	**Midterm exam**
9.	Ethical issues in research; Lab. studies, animal experiments, field research / epidemiological studies, basic ethical issues in clinical trials (with and without interventional)
10.	Informed consent, researcher-volunteer (healthy / patient) relationship, research volunteers, volunteer selection, rights, unqualified (vulnerable / vulnerable) volunteers Human Biological Material for research purposes
11.	Research Biodiversity and Ethics Protection of personal data and privacy
12.	Duties, rights and responsibilities of the interested parties of the research (Researcher, Volunteer, Sponsor, Research Ethics Committee, Contract Research Organization ...)
13.	Scientific delusions, Violations of publication ethics, Problems of authorship right, Sided publication (conflict of interest), Editorial ethics
14.	Evaluation of the legislation and ethical codes related to research and publication ethics in our country.
15.	**Final Exam**

ECTS / WORK LOAD TABLE

Activities	**Number**	**Duration**	**Total Work Load**
Course	14	4	56
Laboratory			
Practice	14	4	56
Field Study			
Outclass course work hours (Self working / Teamwork / Preliminary work)	14	4	56
Presentations (Video preparation / Poster preparation / Oral presentation / Focus group discussion / Applying questionnaire/ Observation and report writing)			
Seminars	14	3	42
Project			
Case study			
Role playing, dramatization			
Preparing and criticizing article			
Semester midterm exams	1	20	20
Semester final exams	1	22	22
Total Work Load (hour) / 25(s)	250/25		
ECTS	10		

EVALUATION SYSTEM

Midterm Studies	**Number**	**Contribution**
Midterm exam	1	%50
Quiz		
Laboratory		
Practice	1	%50
Field Study		
Specific practical training (If exists)		
Homework assignment		
Presentation and seminar		
Projects		
Other evaluation methods		
Total of Midterm Studies		100
Final Studies		
Final	1	%50
Homework assignment		
Practice	1	%50
Laboratory		
Total of Final Studies		100
Contribution of midterm studies to course grade		%50
Contribution of final studies to course grade		%50
Total Grade		100

RELATIONSHIPS BETWEEN COURSE LEARNING OUTCOMES AND PROGRAM QUALIFICATIONS

Program Qualifications		**Learning Outcomes**		
		LO1	**LO2**	**LO3**
1.	Follow the conceptual and clinical scientific developments related to basic measurement, evaluation and treatment techniques specific to physiotherapy and rehabilitation science. Uses adequate and systematic knowledge gained in the areas of physiotherapy and rehabilitation as specialists in professional, clinical and academic studies.			
2.	In order to gain access to information in the field of physiotherapy and rehabilitation, using literature and data sources. Creates new knowledge in the framework of evidence-based physiotherapy methods, achieves problem solving and clinical decision making skills.			
3.	Design multidisciplinary research for quality service and research in health sciences, prepare records, prepare reports, analyze and interpret results. It fulfills all these studies within the framework of ethical and legal responsibilities.			
4.	Research plans, take part in projects, select appropriate statistical methods, interpret the results of his studies, write the report and present it in scientific meetings and contribute to the literature.	**5**	**5**	**5**
5.	Know life-long learning methods and continue to implement them in accordance with their learning needs and objectives.			
6.	It contributes to public health and health policies, and makes individuals, families and the community aware of new approaches in the field of education, preventive and rehabilitation.			
7.	It has an active role in this field by establishing effective communication with individuals and institutions in professional and academic studies related to the field at national and international level.			

Contribution to the level of proficiency: 1: Low **2:** Low/Moderate **3:** Moderate **4:** High **5:** Excellent