MED 4007 - Scientific Research Skills

Course Name	Code	Semester	Type of Course	Theory (hours)	Group Work (hours)	ECTS
Scientific Research Skills	MED 4007	IV	Mandatory	0	56	4
Faculty, the educational program and education level	Faculty of Medicine, one-cycle Educational Program "Medicine"					
Author (s)	**Ismet Dindar**- Professor, Doctor of Medicine Mob.tel.: 05 322 41 42 66; e-mail: ISMETDINDAR@HOTMAIL.COM **Leila Akhvlediani** –Professor, supervisor of a specific scientific investigation Mob.tel.: 593 53 70 72; e-mail: lelabasa@gmail.com Consultation day - individually					
Educatıonal course format	Group work					
Educatıonal course Loading	**Total:** 120 hours **Contact hours**: - 60 h 1. Team work - 56 h 2. Mid-term exam -2 h 3. Final exam -2 h **Independent work** – 60 h					
Prerequisites	MED 3004-Statistical Softwares and Biostatistics II					
The purpose (s) of tutorial course/modules	The main aim of the course is to elaborate in the student the ability of receiving of understandable, objective decision, the definition of expected result of performed work, the searching of scientific literature – to analyze and generalize it; the ability of the selection of the strategy of research, planning of the time needed for the accomplishment of the work, the ability of processing and group presentation of performed work.					
Teaching and learning methods	**Work in group:** The student group consisting of 2-3 persons should carry out the scientific research. The topics for scientific research will be provided by the Academic Board. **Presentation-** preparation and presentation of scientific investigation report; **Work with scientific and medical literature**: regular issues, manuals and internet information technology sources; **Consultation** –individual support work with students (weekly). The students will have the opportunity to independently select the interesting topic after the consultation with their scientific supervisors.					

Assessment criteria	**Maximum score- 100:** 1. **Midterm assessment -60 scores,** that includes: 1.Rresearch work - 20 scores; 2.Article preparation– 10 scores; 3. Presentation -10 scores; 4. Midterm exam – 20 scores **Research work Assessment – max 20 scores** • Actuality of research – 5 scores; • Literature review – 5 scores; • Data analysis – 5 scores; • Conclusions coherence – 5 scores **Article preparation criteria (10 scores - max.):** 1. Actuality of appointed problem – 2 scores; 2. Literature data's observation in the frame of subject -2scores; 3. Data analysis correctness- 2 scores; 4. The presented matter's visual and technical aspects - 2 scores; 5. Accuracy and reliability of indicated references and literature sources –2 scores; **Article presentation's criteria (10 scores - max.):** 1. Academism – 2 score; 2. Time-limit – 2 scores; 3. The presented matter's visual aspects - 2 score; 4. Discussion and hearing culture – 2 scores; 5. Language and style accuracy- 2. **1.3. Midterm Exam – 20 scores** Written test -20 questions, 0,5 score for each – max. 20; 2 questions about research design X 5 score for each –max 10; total: 20) **Minimal scores of midterm assessment (for final exam) – is 11**. **2. Final Exam -40 scores** Is held in the written form – student should write review and conclusion of group-mate's research work The final exam would accounted as passed in case of maximum 70% or more (40X70 / 100 = 28 scores). Credit will be given to the student if he has collected at minimum 51 scores out of 100. Student's assessment has to be done in the following way: Positive rate: • (A) Excellent- 91 or more scores; • (B) Very Good- 81-90 scores; • (C) Good- 71-80 scores; • (D) Satisfactory- 61-70 scores; • (E) Enough- 51-60 scores; Negative rate: • (FX) Failure - 41-50 scores, which means that a student needs to work more and an

	independent and considerable further work is required to pass the exam once again to be re-awarded; • (F) Fail – 40 scores or less, which means that the student's diligence is not sufficient and student has to learn the subject all over again. Student can pass the additional exam during the same semester. The time interval between the final and the additional exams should be not less than 10 days.
The basic literature	**Practical Statistics For Medical Research.** Douglas G.Altman. Chapman & Hall/CRC. 1991;
The auxiliary literature	

The tutorial/training course content

№	Subjects	Work in group (hour)
1	Formation of aims and objectives of the scientific research;	12
2	Planning of the stages of scientific research along with the supervisor	10
3	Definition of the material and methods of scientific research	10
4	Work with medical documentation	6
	Midterm exam	2
5	Searching of literary sources on the scientific topic	6
6	Processing and presentation of the work performed	6
7	Ethical Committee agenda	6
	Final Exam	2

Learning Outcomes

Criteria	Competences
Applying knowledge	After the completion of the learning course the student will know and be able to: • understand the significance of scientific research from the point of view of the development of the branch;

	• search the information on research topic and analyze it critically; • based on the critical analysis of the obtained information to define the priority of scientific investigation and form the strategy for the research; • to define the objective methodology of the research (experimental, epidemiological, qualitative-quantitative, statistical, sociological, interviewing, etc.); • the significance of the investigation based on the evidences; • the ability of the formation of parallel, correlative scientific groups for achieving of reliability of the obtained results; • the definition of applied significance of the results of the investigation; • describe literary research results in written as the abstract and its presentation • work in the group and allocate the labor • organize the time needed for the fulfillment of the work and keep the terms provided for the accomplishment of the work
Making Judgment (Analysis and Synthesis)	Student is able to collect and interprete properly scientific data and make the valid conclusions. On the base of the theoretical and practical knowledge the scientific thinking and logical reasoning skills has to be formed to allow the student working out the appropriate strategy in the concrete academic and clinical situation.
Communıcatıon Skılls	The student has elaborated the ability of communication with the patient and his/her relatives, will be able to give explanations about the disease, to discuss the plan of treatment, to talk about complications, to confirm the necessity of the participation in disease management, to protect the rights of patient. He/she will be able to talk with the colleagues, to show his/her ideas and to define his/her position. In the process of work at the clinic the student will keep the principles of subordination, will have the experience of group work, will be able to allocate time, to define the priorities in his/her activities, will be responsible for the performed and to estimate it objectively and critically. Student can working in group, has watching, listening, summarizing, asking and answering questions abilities, is able to participate in the discussion. During the education process the professional and friendly relationship has to be formed with the older (professors / teachers) and younger (this and other groups students) colleagues, communication with any person regardless of their social, cultural, religious or ethnic affiliation.
Learning Skills	Student can manage the different form of academic and scientific information from different sources (classic and electronic library, the Internet) to work fast and look for the relevant information effectively. These found materials has to be planned, processed, analyzed, and to make the best use for the report with the proper conclusions as in in writing, as well as in verbal form. The student will be aware of the update of his/her knowledge during the professional activities.
Valuable	Responsibility for the work has been done, its objective evaluation and critical view.