



SUBJECT OUTLINE

1. Programme of study description

1.1.	THE "CAROL DAVILA" UNIVERSITY OF MEDICINE AND PHARMACY
1.2.	FACULTY OF MEDICINE / CLINICAL DEPARTMENT 2
1.3.	DISCIPLINE: RESEARCH METHODOLOGY
1.4.	DOMAIN OF STUDY: Healthcare – regulated sector within the EU
1.5.	CYCLE OF STUDIES: BACHELOR'S DEGREE
1.6.	PROGRAMME OF STUDY: MEDICINE

2. Subject description

2.1.	Name of the subject/compulsory subject/elective subject within the discipline: Research methodology						
2.2.	Location of the discipline: "Elias" University Emergency Hospital						
2.3.	Course tenured coordinator: Conf. Dr. Carmen Barbu, Conf. Dr. Sorin Ioacara, Lect. Dr. Sorina Martin						
2.4.	Practicals/clinical rotations tenured coordinator: Assist. Prof. Dr. Aura Reghina, Assist. Prof. Dr. Alice Albu, Assist. Prof. Dr. Luminita Cima, Assist. Prof. Dr. Iulia Soare, Assist. Prof. Dr. Miruna Popa						
2.5. Year of study	4	2.6. Semester	VII, VIII	2.7. Type of assessment	Exam	2.8. Subject classification	Compulsory

3. Total estimated time (hours/semester of didactic activity) – teaching module

Number of hours per week	2	Out of which: course	1	Clinical rotation	1
Total number of hours from curriculum	20	Out of which: course	10	Clinical rotation	10
Distribution of allotted time		10 weeks			Hours
Study from textbooks, courses, bibliography, and student notes					
Additional library study, study on specialized online platforms and field study					
Preparing seminars / laboratories, assignments, reports, portfolios and essays					
Tutoring					
Examinations					
Other activities					
Total hours of individual study					
Number of credit points		2			

4. Prerequisites (where applicable)

4.1. of curriculum	
4.2. of competencies	

5. Requirements (where applicable)

5.1. for delivering the course	
5.2. for delivering the clinical rotation	

6. Acquired specific competencies

Professional competencies (expressed through knowledge and skills)	Acquiring knowledge and making medical documentation, building and verifying a scientific hypothesis, types of clinical studies, variables and measurement methods in clinical studies, analysis and
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	interpretation of data provided by scientific research, types of statistical analysis, ways of expressing results, elaboration of a research project, elaboration of a bachelor's thesis, highlighting the usefulness of research data in clinical practice, elaboration of a practical decision-making algorithm based on data from the scientific literature.
Transversal competencies (of role, of professional and personal development)	<p>The ability to work in a multidisciplinary team and the acquisition of communication and work techniques within the team and in relation to the patient</p> <p>The use of information resources and methods of interpersonal communication and professional training (internet portals, specialized software applications, databases, online courses, etc.) in English</p>

7. Subject learning objectives (based on the scale of acquired specific competencies)

7.1. General learning objective	
7.2. Specific learning objectives	

8. Content

8.1. Course	Teaching methods	Observations
Course 1. Introduction – Definitions, terminology	Course support, interactive presentations (PowerPoint, teaching movies), questions and answers session	
Course 2. Clinical research methodology	Course support, interactive presentations (PowerPoint, teaching movies), questions and answers session	
Course 3. The methodology of medical research in the era of genomics and proteomics - translational medicine	Course support, interactive presentations (PowerPoint, teaching movies), questions and answers session	
Course 4. Ethics of Medical Research	Course support, interactive presentations (PowerPoint, teaching movies), questions and answers session	
Course 5. Dissemination of Research Results	Course support, interactive presentations (PowerPoint, teaching movies), questions and answers session	
8.2. Clinical rotation	Teaching methods	Observations
CR 1. Bibliography and citation of other authors. Medical bibliography databases and bibliographic utilities	Course support, interactive presentations (PowerPoint, teaching movies), questions and answers session	
CR 2. Types of clinical trials (I)	Course support, interactive presentations (PowerPoint, teaching movies), questions and answers session	
CR 3. Types of clinical trials (II)	Course support, interactive presentations (PowerPoint, teaching movies), questions and answers session	



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CR 4. Summary of data and graphical illustration of results – Table and Figure	Course support, interactive presentations (Power Point, teaching movies), questions and answers session	
CR 5. Editing of the bachelor's thesis, a scientific article, oral communications, poster communications. IMRAD criteria	Course support, interactive presentations (PowerPoint, teaching movies), questions and answers session	

Bibliography for course and clinical rotation

1. http://baicus.ro/mcs_cursuri_pdf.htm
2. C. Băicuș. Medicina bazată pe dovezi. Cum înțelegem studiile. Editura Medicală 2007 (www.baicus.ro/prezro.htm)
3. Peter Laake, Haakon Breien Benestad, Bjorn Reino Olsen - Reserch Methodology in the Medical and Biological Sciences. Elsevier, 2007
4. Aviva Petrie, Caroline Sabin - Medical Statistics at a Glance, 3rd edition. Wiley-Blackwell, 2009
5. Robert B. Taylor - Medical Writing - A Guide for Clinicians, Educators, and Researchers. Springer International Publishing, 2018
6. György Marko-Varga (eds.) - Genomics and Proteomics for Clinical Discovery and Development. Springer Netherlands, 2014

9. Corroboration of the subject content with the expectations of the representatives of the epistemic community, professional associations, and major employers in the field of the programme of study

The content of the courses within the discipline Research methodology is adapted from year to year to include the latest news in the field, with an attractive, adapted format the permanent changes of society and its requirements.

10. Assessment

Type of activity	Assessment criteria	Assessment methods	Assessment weighting within the final grade
Course	Knowledge	Written Exam	45%
Clinical rotation	Knowledge, research skills	Oral Exam	55%

Minimum performance standard

5 out of 10

Date of filing
20.10.2022

Signature of the course tenured coordinator

Signature of the seminar tenured coordinator

Signature of the Head of the Discipline
Prof. Univ. Dr. Simona Fica

Date of approval in the Council of the Department:

Signature of the Head of the Department
Prof. Univ. Dr. Adrian Streinu-Cercel