

DISCIPLINE FILE
ACADEMIC YEAR
2022- 2023

1. DATA ABOUT THE STUDY PROGRAM

1.1 Institution of higher education	UNIVERSITY OF MEDICINE AND PHARMACY FROM CRAIOVA
1.2 Faculty	FACULTY OF DENTISTRY
1.3 Departament	2
1.4 Research field	HEALTH
1.5 Study Cicle ¹	LICENCE
1.6 Study Program/Qualification	DENTAL MEDICINE

2. DATA ABOUT DISCIPLINE

2.1 Discipline name	Scientific research methodology						
2.2. Discipline code	MD 2214						
2.3 The holder of course activities	Bugăla Smaranda Adelina						
2.4 The holder of seminar activities	Bugăla Smaranda Adelina						
2.5. Academic degree	PhD. Lecturer						
2.6. Employment (base norm/associate)	Base norm						
2.7. Year of study	II	2.8. Semester	II	2.9. Course type(content) ²⁾	DC	2.10. Regime of discipline (compulsoriness) ³⁾	DI

3. THE ESTIMATED TOTAL TIME (teaching hours per semester)

3.1 Number of hours per week	2	3.2 course	1	3.3 seminar/laboratory	1
3.4 Total hours in curriculum	28	3.5 course	14	3.6 seminar/laboratory	14
Time found distribution (hours)					
Study from manual, course support, bibliography, and notes					7
Additional documentation in the library, specialized electronic platforms and, on the field					7
Training seminars / labs, homework, reports, portfolios, and essays					10
Tutoring					1
Examinnations					2
Other activities... counselling, student scientific programs					1
3.7 Total hours of individual study	28				
3.9 Total hours per semester	56				
3.10 Number of credits ⁴⁾	2				

4. PREREQUISITES

4.1 of curriculum	The students should have strong Histology, Anatomy, Embryology, Cellular and Molecular Biology, Physiology, Biochemistry and Biostatistics knowledge
4.2 competency	-

5. CONDITIONS (where appropriate)

5.1. of curse deployment	Classroom with design facilities Students will not attend classes with mobile phones open and it is not allowed to use phones during the course (pictures, recordings, calls). It is forbidden to take pictures / recordings during the course without the consent of the teacher.
5.2. of seminary/ lab deployment	Preliminary preparation, by individual study, of the laboratory Classroom with design facilities Students will not attend the practical assignments with mobile phones open . It is forbidden to take pictures / recordings during the practical works without the consent of the teacher.

6. SPECIFIC COMPETENCES ACQUIRED ⁶⁾⁷⁾

PROFESSIONAL COMPETENCES	<p>C1 – Identifying the state of the ill-health and accurately diagnosing dental condition(s)</p> <p>C4 – To correctly evaluate the risk of individual or collective illness and to choose and apply the prophylaxis adequate measures</p> <p>C5 – To initiate and conduct a scientific research activity and / or a training activity inside the field of competence</p>
TRANSVERSAL COMPETENCES	<p>C6. Autonomy and responsibility</p> <ul style="list-style-type: none"> • the acquisition of moral reference points, the formation of professional and civic attitudes, that will allow to the students to be fair, honest, helpful, understanding, cool-headed, to cooperate and to be interested in community development; • to learn how to recognize the problems when they arise, and provide solutions for solving them. • identifying the objectives to be fulfilled, the available resources, the terms of completion, the work stages, the timeframe, the related deadlines and the inherent risks. • performing projects under coordination, in order to solve specific problems for the field, with the correct evaluation of the workload, the available resources, the time necessary for their completion and the risks, while applying the professional deontological and ethical norms in the field, as well as the labor health and security norms <p>C7. Social interaction</p> <ul style="list-style-type: none"> • the identification of the roles and responsibilities within a multi-disciplinary team and applying techniques of relationship and effective work within a team and in relationship with the patient • developing an assignment/project by performing responsibly the tasks typical for the role in a pluridisciplinary team • to communicate orally and in writing the manner of work requirements, the obtained results , to consult with the team; <p>C8. Personal and professional development</p> <ul style="list-style-type: none"> • to have opening to lifelong learning, • to derive the optimum and creative potential in their own collective activities; • preparing, processing and presenting a research paper on a subject relevant for the field, using various information sources and instruments, in Romanian and in an international language. • using the information and communication resources efficiently, as well as those for assisted professional development (web portals, specialized software applications, data bases, on-line courses etc.) both in Romanian and in an international language

7. DISCIPLINE OBJECTIVES (based on the grid of specific competences acquired)

7.1 The general objective of the discipline	Acquirement of general knowledge regarding the medical scientific research, its ethical norms. Acquirement of knowledge regarding the application of scientific research modern methods.
7.2 The specific objectives of the discipline	<ul style="list-style-type: none"> - to write specific medical scientific papers - to know the basic ethical norms of medical scientific research both on animal and human material - to practice some specific programs for statistics and medical research

8. CONTENTS

8.1 Course (content units)	No. h
1. Definitions. History. Types of scientific research	2
2. Principles of scientific research. The plan and stages of a research study	2

3. The component parts of a scientific paper	2
4. Types of medical research studies. Cross-sectional studies in medicine; incidence, prevalence	2
5. Organization of observation-based medical research studies. Case-control study. Target population, accessible population, study population	2
6. Organization of observation-based medical research studies. Organizing cohort studies. Prospective cohorts and retrospective cohorts	2
7. Ethics of scientific research. Capitalizing on the results obtained through research.	2
TOTAL	14
BIBLIOGRAPHY	
<ol style="list-style-type: none"> 1. Achimaș Cadariu Andrei – Metodologia cercetării științifice medicale. Editura Medicală Universitară „Iuliu Hațieganu”, Cluj – Napoca, 1999; 2. Mihaela St. Radulescu – Metodologia cercetării științifice. Elaborarea lucrărilor de licență, masterat, doctorat. Editia a II-a. Editura didactică și Pedagogică, 2011 3. Comes Cristian Andrei, Popescu-Spineni Sabina – Metodologia cercetării științifice. Editura Cermaprint, București, 2005; 4. David Daniel – Metodologia cercetării clinice – fundamente. Editura POLIROM, Iași, 2006; 5. Enăchescu Constantin – Tratat de teoria cercetării științifice. Editura Polirom, Iași, 2005; 6. Iliescu Victor, Gherghinescu Oana – Managementul Proiectelor. Editura Didactică și Pedagogică, R.A. București, 2005. 7. Landrison Gilles, Delahaye Francois - La Recherche Clinique. De l’idée a la publication. Editura Masson, Paris, 1995; 8. Laake, P.B., H.B.; Olsen, B.R. Research Methodology in the Medical and Biological Sciences. London: Academic Press – Elsevier, 2007 9. Manolea Gheorghe – Bazele cercetării creative. Editura Agir, București, 2006; 10. Harris, M.; Taylor, G. Medical statistics made easy. Scion Publishing Ltd.: Kent, UK, 2014; 11. Pirici Nicolae Daniel – Metodologia Cercetării Științifice. Editura Medicală Universitară Craiova, 2015 	
8.2 Practical activity (topics / themes)	No. h
1. Writing a scientific paper. The structure of an original article. Other types of items Presentation of the theme in the form of slides in PowerPoint format. Question and answer session with the teacher on the topic	2
2. Statistics in medicine. Types of data. Principles of use of data processing and representation systems Presentation of the theme in the form of slides in PowerPoint format. Question and answer session with the teacher on the topic.	2
3. Methods of documentation and citation in research Presentation of the theme in the form of slides in PowerPoint format. Question and answer session with the teacher on the topic.	2
4. Objectives of case-control and cohort medical research studies. Identification of dependent and independent variables Presentation of the theme in the form of slides in PowerPoint format. Question and answer session with the teacher on the topic.	2
5. Clinical trials, the specific staging of a trial. Therapeutic trial. Randomization, blind work, use of questionnaires Presentation of the theme in the form of slides in PowerPoint format. Question and answer session with the teacher on the topic.	2

6. Cohort studies. Organizing cohort studies. Prospective cohorts and retrospective cohorts Presentation of the theme in the form of slides in PowerPoint format. Question and answer session with the teacher on the topic.	2
7. Analysis of data obtained from research studies; Odds Ratio, Relative Risk Presentation of the theme in the form of slides in PowerPoint format. Question and answer session with the teacher on the topic.	2
TOTAL	14
<p>BIBLIOGRAPHY</p> <ol style="list-style-type: none"> 1. Achimaș Cadariu Andrei – Metodologia cercetării științifice medicale. Editura Medicală Universitară „Iuliu Hațieganu”, Cluj – Napoca, 1999; 2. Mihaela St. Radulescu – Metodologia cercetării științifice. Elaborarea lucrărilor de licență, masterat, doctorat. Ediția a II-a. Editura didactică și Pedagogică, 2011 3. Comes Cristian Andrei, Popescu-Spineni Sabina – Metodologia cercetării științifice. Editura Cernaprint, București, 2005; 4. David Daniel – Metodologia cercetării clinice – fundamente. Editura POLIROM, Iași, 2006; 5. Enăchescu Constantin – Tratat de teoria cercetării științifice. Editura Polirom, Iași, 2005; 6. Iliescu V., Gherghinescu O. – Managementul Proiectelor . Editura Didactică și Pedagogică, R.A. București, 2005. 7. Landrison Gilles, Delahaye Francois - La Recherche Clinique. De l’idée a la publication. Editura Masson, Paris, 1995; 8. Laake, P.B., H.B.; Olsen, B.R. Research Methodology in the Medical and Biological Sciences. London: Academic Press – Elsevier, 2007 9. Manolea Gheorghe – Bazele cercetării creative. Editura Agir, București, 2006; 10. Harris, M.; Taylor, G. Medical statistics made easy. Scion Publishing Ltd.: Kent, UK, 2014; 11. Pirici Nicolae Daniel – Metodologia Cercetării Științifice. Editura Medicală Universitară Craiova, 2015 	

9. CORROBORATING THE DISCIPLINE CONTENT WITH THE EXPECTATIONS OF EPISTEMIC COMMUNITY REPRESENTATIVES, PROFESSIONAL ASSOCIATIONS AND EMPLOYEE REPRESENTATIVES RELATING TO THIS PROGRAM

- The Scientific Research Methodology Discipline is a mandatory discipline, necessary for a student to have a complete summing-up upon the continuous evolution process in the medical field.

The knowledge, practical skills acquired at this discipline offer the necessary support to the student in order to be able to conceive, compose, draft, analyse and publish a peer review scientific paper

10. METHODOLOGICAL LANDMARKS

Types of activity	Teaching Techniques / learning materials and resources: display, interactiv course, group work, project/problem learning.
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Course	The teaching is performed through modern techniques, using video projection, schemata and examples using medical literature papers and the exposure of the positive and negative aspects of the scientific research.
Practical activity	The practical activity is interactive and the aim is the students' involvement in debates on types of scientific papers. The students participate also in computer aided work in order to learn the new techniques of documentation and statistic methods adequate to the analysis of each type of achieved results. The goal is the stimulation of students' curiosity for scientific research by exposing different types of medical studies as well as the methods used to achieve them.
Individual study	Before each course and each practical work.

11. RECOVERY PROGRAM					
	No. absences that can be recovered	Location of deployment	Period	In charge	Topics schedule
Absences recoveries	3 practical activities	Scientific research methodology lab/online	next to last week of the semester	Lecturer Bugălă Smaranda Adelina	according to the practical work that need to be recovered, Written paper on the topic to be recovered / discussion with the teacher about the topic to be recovered
Consultations schedule	2 hours /week	Scientific research methodology lab./online	According to the semester schedule	Lecturer Bugălă Smaranda Adelina	according to students' demand
Scientific program	NO				
Program for students poorly trained	2 hours	Scientific research methodology lab./online	According to the semester schedule	Lecturer Bugălă Smaranda Adelina	according to students' demand
12. ASSESMENT					
Form of activity	Evaluation				Percentage of final grade
12.1. Periodic evaluation	Test - 30 questions (with simple or multiple choice) (after sixth course) - discipline headquarters / UMF platform				20%

12.2.Exam	Form	Content	
12.2.1. Theoretical part and practical part	Written test - Summative assessment of the course and practical work (headquarters of the discipline / UMF platform)	Test: 30 questions with simple or multiple choice	70%
12.3. Active involvement in courses (involves attendance at courses) and practical work carried out onsite / online			10%
13. GUIDANCE AND COUNSELLING PROGRAMS			
Professional guidance and counselling programs (2 hours/monthly)			
Hours scheduling	Locul desfășurării	In charge	
Penultimate Thursday of every month 18.00-20.00	Scientific research methodology lab./ online	Lecturer Bugăla Smaranda Adelina - Discipline Holder	

Endorsement date in the department

Department Director,

Phd. Professor Dr. Mihaela Tuculină

Coordinator of study program,

Conf. univ. Dr. Adrian Camen

Discipline Holder,

Phd. Lecturer Bugăla Smaranda Adelina

Note:

- 1) Study cycle - choose one of the options: L (licence) / M (master) / D (doctorate).
- 2) Type (content) - choose one of the options:
 - for the license level: FD (fundamental discipline) / FD (field discipline) / SD (specialized discipline) / CD (complementary discipline);
 - for the master level: YES (in-depth discipline) / SD (synthesis discipline) / AKD (advanced knowledge discipline).
- 3) Discipline regime - choose one of the variants: CD (compulsory discipline) / OD (optional discipline) / OD(optional discipline).
- 4) One credit is equivalent to 25-30 hours of study (teaching activities and individual study).
- 5) An attendance bonus can be granted.
- 6) From the 5 professional competencies (those that are entered in the transcript), the ones in which the discipline falls are chosen.
- 7) The transversal competences are 3 in number and are marked from C6 - C8: C6. Autonomy and responsibility; C7. Social interaction; C8. Personal and professional development