

Foundation of Scientific Methodology in Health Sciences (Enfermería)

Teaching guide 2023-24

INTRODUCTION

Course description: This subject introduces students into scientific research in nursing. The aim is for students to acquire theoretic and methodological knowledge that will help them reflect upon the reality of nursing, as well as obtain scientific knowledge and consider its application in nursing, in order to improve professional practice and quality of the care. It will also foster a positive attitude towards research and will educate in skills related to the search and use of scientific evidence, critical reading and asking questions, and research projects.

• Degree: Nursing

• Module in the Degree Program: Basic Nursing Education, Instrumental Subjects

Number of credits: 3ECTS
Year: 2°, second semester
Type of course: Compulsory

• Instructor: Dr. María José Hernández. Dr. María Lavilla. Miss Beatriz Esquizabel

• Language: English

• Lecture schedule: Wednesday from 3:00-5:00 pm

COMPETENCIES

CE07. Using information and communication technologies and systems in healthcare.

CE22. Analyzing statistical data from population-based studies to identify the possible causes of health problems.

CG01. In the context of nursing, students must be able to provide technical and professional healthcare that fits the health needs of the people they care for, in accordance with their stage in the process of acquisition of academic knowledge and the quality and safety levels established in applicable legal and ethical standards.

CG06. Basing nursing interventions on scientific evidence and the resources available.

CG14. Establishing assessment mechanisms that take into account scientific, technical and quality aspects.

CG16.Being familiar with healthcare information systems.

CB2. Students must know how to apply their knowledge to their work or vocation in a professional way and must have the competences that are usually demonstrated by means of preparing and defending arguments and solving problems within their area of study.

CB3. Students must have the ability to gather and interpret relevant data (usually within their area of study) to make judgments that include a reflection on relevant social, scientific and ethical topics.

CB4. Students must be able to transmit information, ideas, problems and solutions to specialized and general audiences.

CB5. Students must develop the learning skills required to undertake subsequent studies with a high level of independence.



PROGRAM

- 1. Introduction to nursing research and development
- 2. Bibliographic citation
- 3. Evidence-based nursing (EBP)
- 3.1 Introduction to evidence-based practice
- 3.2.Research question
- 3.3 Search strategy
- 3.4 Summarizing evidence
- 4. Research: generating evidence
- 4.1The research process: Key concepts and steps
- 4.2 Question, aim and hypothesis
- 4.3 Selecting a research approach: Major research paradigms and designs
- 4.4 Sampling Methods in Quantitative and Qualitative Research
- 4.5 Data collection and analysis
- 4.6 Research ethics and rigour

EDUCATIONAL ACTIVITIES

I. Face to face educational activities:

Theorical and participatives class (20 hours; 0.8ECTS):

The most relevant conceptual and theoretical aspects of the course will be explained in the class using audiovisual media. The classes will be participatory working with examples and cases to illustrate the key aspects of the course. The lecturer will indicate to the students the reading and study material for each topic (journal articles; book chapters, pieces of news..). Participation and contribution during the class will be positively valued.

Students are reminded that the sessions can be transmitted by videoconference and even recorded, and that they are protected by copyright. More information can be obtained on the ADI access page.

Seminar quatation and reference (2 hours; 0.1ECTS):

A two-hour session where students practice, through a variety of exercises, the main methods of quotation and bibliographic references in nursing. The workshop will be held on the 16st of January 2023 at the computer room.

Seminar search strategy (4 hours; 0.2ECTS):



The objective is to learn the use of Pubmed. Two sessions will be held in the classroom with the personal computer two hours each. The first session will work individually based on three models of research question. Session 2 in groups of 3 to 4 people will work as a team for the search strategy and results. (asistencia is mandatory)

Individual tutorials (2 hour; 0.1ECTS):

Previously scheduled meetings (appointment by email: mhernandezl.1@unav.es) between the student and the professor to resolve doubts in relation to the subject content, the work as well as to guide the learning process.

Evaluation (2 hours; 0.1ECTS):

The student will demonstrate the acquisition of the knowledge, attitudes and ability of the corresponding competences. The evaluation is specified in the "Evaluation" section

II. Personal work:

Students must understand themes covered early in the course to be able to comprehend information presented later in the course, and will have to be able to integrate material learnt throughout the course. Therefore, it is important that they do not fall behind and try to set aside regular times outside of class to work on the course material on a daily basis.

- **1.** Students must read the assigned reading for a subject before the lecture covering that topic. Being familiar with topics beforehand will allow students to get the most out of the lecture (22,5 hours; 0.9ECTS).
- **2.** Students should conduct personal study using the professor's notes, notes taken in lectures and recommended books if needed. It includes the study hours, reading materials and preparing classes and the time required to prepare the seminar. (35 hours; 1.4ECTS).
- **3.** Students have to prepare **work in pairs** (10 hours; 0.4ECTS): It will consist of developing a bibliographic search in the Pubmed database. Specifically, a clinical practice research question must be asked, justified, and scientifically described as the search strategy carried out. In addition, 2 articles must be selected and the main results must be synthesized that allow answer to the question. The full details will be provided in class. Clarity of expression / presentation, relevance and bibliography will be evaluated.

The deadline will be notified in advance at the beginning of the course.

ASSESSMENT

Activities	Percentage
Proactive participation and handing in short activities	10%
Oral presentation	20%



Writing Inform	20%
Exam	50%
Total	100%

The attendance at classes is valued positively, but above all attending with the activities and the material worked to promote participatory dynamics. The lecturer will assess also the knowledge being acquired when responding to questions related to content taught in previous classes.

Failure to attend the search seminar, without justification, will **subtract two points from the final grade** for the course.

The **final exam** will be multiple choice tests. Exams questions will be drawn directly from lectures, class discussions and seminars.

Evaluation in the ordinary call

The final grade for the course will be the result of the grades obtained in the assessable training activities. Failure to attend the search seminar, without justification, will mean two points less in the overall mark. To pass the course, it will be required to have achieved a minimum qualification of 5 in the final exam and 5 at work. The non-presentation of the work or exam supposes the failure of the subject. The grade of the approved evaluation components will be kept until the extraordinary evaluation.

Students whose final grade is 5 points or more will pass the course.

Students whose final grade is below 5 points will not pass the course and will be graded as *Suspenso* .

Students who do not take the final exam will not pass the course and will be graded as *No presentado*.

Evaluation in the extraordinary call

For those who do not pass the course in May or did not take the exam (grades *Suspenso* or *No presentado*) there will be an extraordinary evaluation in June. The student will be evaluated for the failed part in the ordinary evaluation. The final grade will be the result of the grades obtained in each of the activities described.

Final grade of the course: in accordance with the article 5 of the Royal Decree 1125/2003, the results obtained by the student will be graded according to the following numerical scale from 0 to 10, with a decimal expression, its corresponding qualitative qualification may be added:

0-4.9: Failed (Suspenso)

5.0-6.9: Passed (Aprobado)

7.0-8.9: Good (Notable)



9.0-10: Merit (Sobresaliente)

Exams review:

Students will be able to review the exams and assessable works in an interview with the professor, after the publication of the grades, in a day and place that will be notified.

Students with special learning needs:

Accommodation will be provided for students with special learning needs, either regarding the methodology and/or evaluation of the course, but they will be expected to fulfill all course objectives.

OFFICE HOURS

Dra. María José Hernández (mherandezl.1@unav.es)

- Despacho 092. Edificio Los Castaños. Planta -1
- Horario de tutoria: 09:00 18:00 hrs (concertar cita previa)

BIBLIOGRAPHY AND RESOURCES

BASIC

Handbook of Theory and Methods in Applied Health Research: Questions, Methods and Choices. Catherine Walshe, Srah Brearley. United Kingdom, Edward Elgar Publishing Ltd. 2020. Find this book in the library

How to perform a systematic literature review: a guide for health care researchers, practitioners and students. Edward Purssell, Niall McCrae. Cham: Springer International Publishing. 2020. Find this book in the library (Versión electrónica)

A post-graduate's guide to doing a literature review in health and social care. Helen Aveyard, Sheila Payne, Nancy Preston. Maidenhead_ Open University Press. 2016. Find this book in the library

A step-by-step guide to conducting an integrative review. Coleen E. Toronto, Ruth Remington. Cham: Springer International Publishing. 2020. Find this book in the library (Versión electrónica)

The Oxford handbook of qualitative research. Patricia Leavy. Oxford, New York: Oxford University Press. 2014 Find this book in the library

The Research Process in Nursing. 6th edition. Gerrish K, Lacey A. 2010 Find this book in the library

The practice of nursing research: conduct, critique & utilization Nancy Burns, Susan K. Grove. 2001 Find this book in the library

Nursing research: generating and assessing evidence for nursing practice Denise F. Polit, Cheryl Tatano Beck. 2008 Find this book in the library

Nursing research: principles and methods. Denise F. Polit, Cheryl Tatano Beck. 2004 Find this book in the library



Nursing research: principles, process and issues. Kader Parahoo. 2006 Find this book in the library

OTHER

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