Teaching guide

IDENTIFICATION DETAILS

Degree:	Pharmacy
Scope	Pharmacy
Faculty/School:	Experimental Sciences
Course:	CLINICAL PHARMACY
Type:	Compulsory
ECTS credits:	3
Year:	4
Code:	2551
Teaching period:	Seventh semester
Subject:	Clinical Pharmacy
Module:	Medicine and Pharmacology
Teaching type:	Classroom-based
Language:	Spanish
Total number of student study hours:	75

SUBJECT DESCRIPTION

Clinical Pharmacy, together with Pharmaceutical Care, are two closely related disciplines whose main reason for being is the orientation of all pharmaceutical action towards the patient. The pharmacist, as a healthcare professional, must be responsible for the proper use of medications to achieve the greatest effectiveness and safety in each specific patient adjusted to their clinical characteristics and the best results of pharmacotherapy. It is intended that the student be able to integrate the knowledge acquired in previous courses in Pharmacokinetics, Pharmacology, Toxicology, Clinical Analysis and to apply it to the resolution of clinical problems'.

GOAL

· Provide an integrated view of the knowledge of the different disciplines that the student has been acquiring in previous courses to give it a global meaning, to relate the disciplines to each other to make a total assessment of the patient, his pathology and his treatment.
· To enable the student to know, understand, relate and interpret the information they receive both from the patient and about the patient from different healthcare professionals.
· Ensure that the student is able to receive, interpret and communicate information from official bodies related to the drug.

PRIOR KNOWLEDGE

It is especially important that the student has previously taken the subjects of Pharmacology, Pathophysiology and Clinical Biochemistry.

It is recommended to review the knowledge of Pharmacology and Pathophysiology prior to the start of this course.

COURSE SYLLABUS

THEORETICAL CONTENT
1. INTRODUCTION.
Concept, evolution and development of Clinical Pharmacy.
2. PHARMACOVIGILANCE.
Objectives, characteristics, Spanish Pharmacovigilance System, safety of the use of medications.
3. CLINICAL RESEARCH.
Clinical Trials.
4. AREAS OF CLINICAL PHARMACY - PHARMACOTHERAPY.
Drug selection. Rational use of medication, drug use studies. Validation of medical prescriptions. Medication dispensing and pharmacotherapeutic monitoring. Drug development, masterful formulation. Artificial nutrition. Use of medications in special situations, in special populations and in conditioning pathological situations. Outpatient Care Units.
PRACTICAL CONTENT
- Notification of adverse reactions.
- Resolution of the exercise of pharmaceutical care and clinical pharmacy.

EDUCATION ACTIVITIES

AFP1. Theory classes. Master classes in which the theoretical foundations of the subject will be developed. It seeks to provide the information corresponding to the subject in order to facilitate the understanding of the content, but it is necessary to deepen and complete this information by consulting bibliographic sources.
AFP3. Exercise classes and seminar. As a complement to theoretical classes, it seeks to establish the knowledge acquired and provide a more practical approach. The activities are oriented towards problem-based learning and case analysis. Attendance is important.
AFP4. Group work. Realization and presentation of work in groups.

AFP5. Tutoring. Schedule for resolving doubts, guidance in learning and taking advantage of the subject. The tutoring schedule can be consulted in the degree coordinator and will be informed by the teacher at the beginning of the course.
AFP6. Conducting exams.

AFNP1. Study of theory, exercises and problems.
AFPN2. Preparation and study of practices.
AFNP3. Preparation of works.
AFNP4. Tutoring preparation.
Training activities, as well as the distribution of working hours, can be modified and adapted according to the different established scenarios, following the instructions of the health authorities

DISTRIBUTION OF WORK TIME

TEACHER-LED TRAINING ACTIVITIES	INDIVIDUAL WORK
34 Horas	41 Horas

LEARNING RESULTS

Use medicines safely, taking into account their physical and chemical properties, including any risks associated with their use.

Carry out clinical and social pharmacy activities, following the pharmaceutical care cycle.

Promote the rational use of medicines and medical devices.

Know and understand the structure and function of the human body, as well as the general mechanisms of disease, molecular, structural and functional alterations, syndromic expression and therapeutic tools to restore health.

Know and understand the techniques used in the design and evaluation of preclinical and clinical trials.

Evaluate the effects of substances with pharmacological activity.

SPECIFIC LEARNING RESULTS

Analyze drug use studies

Cooperate with patient health education.

Promote the participation of pharmacists in health education campaigns.

Develop quality control indicators to evaluate pharmacist care activities.

Identify the phases, characteristics and figures participating in clinical trials. Consistently interpret a medical prescription and possible interventions.

Promote the participation of pharmacists in research programs that contribute to the rational use of medications and to the improvement of patients' quality of life.

Describe, communicate, manage and clearly participate in the relationship of the drug and its environment with the patient; in the role of the pharmacist in Primary Care and in other areas of the National Health System; in the rational use of medicines and medical devices; in pharmacovigilance, in the resolution of interactions or adverse reactions and in the dosage of special situations.

LEARNING APPRAISAL SYSTEM

The ordinary evaluation system is comprised of:
ISE1. Written exam. 65% of the final grade.
IF 2. Daily activities and exercises. 15% of the final grade.
IF 3. Individual and group work. 15% of the final grade.
IF 4. Attendance and participation in face-to-face activities. 5% of the final grade.
To keep in mind:
- To average the final grade taking into account the grades corresponding to the rest of the training activities, it is necessary to have at least 4.5 in the written exam. The rating of these activities is saved until the extraordinary call.
- Spelling and calligraphy will be evaluated. If you commit 3 serious misspellings, 0.3 points will be subtracted from the final grade (serious misconduct is understood as confusions v/b, j/g, c/z, y/ll, lack of h or confusion between words of the same phonetic type, such as there is/there/ay or haber/a see).
Students who enroll for the second or more times can take advantage of the ordinary evaluation system or, if they are unable to attend classes on a regular basis, there is an alternative system. They must contact the teacher to apply for this system. The evaluation will consist of:
ISE1. Written exam (65%).
IF 2. Activities (20%).
IF 3. Participation in individual or group work (15%).

Plagiarism, as well as the use of illegitimate means in evaluation tests, will be sanctioned in accordance with those established in the Evaluation Regulations and the University's Coexistence Regulations.

ETHICAL AND RESPONSIBLE USE OF ARTIFICIAL INTELLIGENCE

1.- The use of any Artificial Intelligence (AI) system or service shall be determined by the lecturer, and may only be used in the manner and under the conditions indicated by them. In all cases, its use must comply with the following principles:
a) The use of AI systems or services must be accompanied by critical reflection on the part of the student regarding their impact and/or limitations in the development of the assigned task or project.
b) The selection of AI systems or services must be justified, explaining their advantages over other tools or methods of obtaining information. The chosen model and the version of AI used must be described in as much detail as

possible.
c) The student must appropriately cite the use of AI systems or services, specifying the parts of the work where they were used and describing the creative process followed. The use of citation formats and usage examples may be consulted on the Library website(https://www.ufv.es/gestion-de-la-informacion_biblioteca/).
d) The results obtained through AI systems or services must always be verified. As the author, the student is responsible for their work and for the legitimacy of the sources used.
2.- In all cases, the use of AI systems or services must always respect the principles of responsible and ethical use upheld by the university, as outlined in the Guide for the Responsible Use of Artificial Intelligence in Studies at UFV. Additionally, the lecturer may request other types of individual commitments from the student when deemed necessary.
3.- Without prejudice to the above, in cases of doubt regarding the ethical and responsible use of any AI system or service, the lecturer may require an oral presentation of any assignment or partial submission. This oral evaluation shall take precedence over any other form of assessment outlined in the Teaching Guide. In this oral defense, the student must demonstrate knowledge of the subject, justify their decisions, and explain the development of their work.

BIBLIOGRAPHY AND OTHER RESOURCES

Basic

Joaquín Bonal de Falgás (editor). Clinical Pharmacy/Madrid: Summary, 1999.

Joaquín Herrera Carranza. Manual of clinical pharmacy and pharmaceutical care/Madrid:Elsevier, 2003.