

26333 - Pharmacology for Physical Activity and Sport

Información del Plan Docente

Academic Year	2016/17
Academic center	229 - Facultad de Ciencias de la Salud y del Deporte
Degree	295 - Degree in Physical Activity and Sports Science
ECTS	6.0
Course	
Period	Second semester
Subject Type	Optional
Module	---

1.Basic info

1.1.Recommendations to take this course

1.2.Activities and key dates for the course

2.Initiation

2.1.Learning outcomes that define the subject

2.2.Introduction

3.Context and competences

3.1.Goals

3.2.Context and meaning of the subject in the degree

3.3.Competences

3.4.Importance of learning outcomes

4.Evaluation

5.Activities and resources

5.1.General methodological presentation

5.2.Learning activities

5.3.Program

THEORETICAL PROGRAM

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SECTION 1 : GENERAL PRINCIPLES OF PHARMACOLOGY

Chapter 1. Concept of Pharmacology. Definition and contents. Division of Pharmacology.

Chapter 2. ADME: Pharmacokinetics

Chapter 3. Pharmacodynamics

Chapter 4. Drug Interactions

Chapter 5. Adverse drug reactions (ADR). Pharmacovigilance

SECTION 2 : SPECIFIC THERAPEUTIC DRUGS AND PHYSICAL EXERCISE

Chapter 5: Drugs acting on Autonomic Nervous System and Peripheral Nervous System

Chapter 6: Psychostimulant drugs

Chapter 7: Beta blockers drugs

Chapter 8: Central Nervous System depressants drug

Chapter 9: Pharmacological basis for the pain and inflammation

Chapter 10: Nonsteroidal anti-inflammatory drugs (NSAIDs)

Chapter 11: Opioid analgesics

Chapter 12: Steroids antiinflammatory drugs (Corticosteroids)

Chapter 13: Anabolic androgenic steroids

Chapter 14: Growth hormone, rhGH, IGF-1

Chapter 15: Blood doping

Chapter 16: Erythropoietin. Epoetins

Chapter 17: Masking agents

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SECTION 3 : ANALYSIS OF INFLUENCE OF EXERCISE ON TREATMENT OF CHRONIC DISEASES.

Chapter 18: Diabetes Mellitus type I and type II

Chapter 19: Asthma. Exercise-induced asthma

Chapter 20: Anemia: iron deficiency anemia, vitamin B12 and folic acid deficiency anemia.

Chapter 21: Arterial Hypertension

PRACTICE PROGRAM

- Workshop:

. Pharmaceutical forms and route of drug administration

. New drug development. Clinical trial

- Doping control. Protocol and regulation

- Dietary supplements

- Computer simulation: Autonomic Nervous System: Dose-response curves. Agonist and antagonist drug (competitive or non-competitive). Neuromuscular blocking drugs

- Problem-based learning (PBL1, PBL2 and PBL3)

- Asthenia: clinic cases

- References research. Online Pharmacology directions

- Group work and presentation.

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5.4.Planning and scheduling

5.5.Bibliography and recomended resources