Course Title	**Drug Design and Development**
Course Code	MD265
Course Type	Elective
Level	1st Cycle (MD)
Year / Semester	2nd Year / 3nd Semester
Teacher's Name	TBA

ECTS	3	Lectures / week	1 / 14 weeks	Laboratories / week	0 / 14 weeks

Course Purpose and Objectives	This course will explore the process of drug development, from target identification to final drug registration. It will present drug development as a process involving target selection, lead discovery using computer-based methods and combinatorial chemistry/high-throughput screening. Safety evaluation, bioavailability, clinical trials, and the essentials of patent law will also be discussed. Along the way you will learn about molecular recognition, drug design, and toxicology as applied to the development of new medicines
Learning Outcomes	• Describe the role and importance of the various processses involved in the different phases of drug discovery and development. • Evaluate preclinical and clinical pharmaceutical studies with a general understanding of aim, choice of procedures, results, conclusions and importance. • Explain scientific, ethical and market-related considerations of importance in the drug development. • Carry out searches in databases to retrieve information relevant to the development of a new drug. • Explain how methods for predictions are used to make early decisions in the drug discovery and development. • Stages of development.

Prerequisites	None	Co-requisites	None

Course Content	The course content deals with: • Description of the different phases in drug development; Identification and validation of target molecule (the target). • The identification and optimisation of active substance. • In-vivo and in-vitro pharmacology of the drug. • Formulation and disease models • Clinical trials and commercialisation On completion of this course students should:

	1.be able to describe the process of drug discovery and development 2. be able to discuss the challenges faced in each step of the drug discovery process. 3. have gained a basic knowledge of computational methods used in drug discovery. 4. be able to demonstrate their ability to work in teams and communicate scientific information effectively
Teaching Methodology	Face-to-face
Bibliography	Drug Discovery and Development; Technology in Transition. HP Rang. Elsevier Ltd Pharmacology in Drug Discovery. T. P. Kenakin. Elsevier, An introduction to medicinal chemistry. G. L. Patrick. Oxford UK, Oxford University Press,
Assessment	Examinations: 70% Assignment/Lab 20% Class Participation: 10%
Language	English