



BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, Pilani
Pilani Campus
AUGS/ AGSR Division

SECOND SEMESTER 2020-2021

Course Handout

Date: 16/01/2021

Course No. : PHA F341
Course Title : Pharmacology-II
Instructor-In-Charge : Gaikwad Anil Bhanudas
Team of Instructors : Sankrityayan Himanshu, Deepak Kumar Sahel, Ajinath Vishwanath Kale,
Shelke Vishwadeep Madhukar

Course Description:

Pharmacology of important classes of drugs including their mechanisms of action, therapeutic uses, side effects, toxic manifestations, indications and contraindications.

Scope and Objectives:

This course is intended to impart the knowledge regarding the concepts of actions of drugs on various systems of the human body including cardiovascular system, urinogenital system, respiratory system, gastrointestinal and endocrine system etc. The course also imparts the knowledge regarding the mechanisms of action of various antimicrobial agents in the treatment and prevention of various diseases caused by the bacteria, fungi viruses and parasites. The course also deals with the drug-drug interactions, therapeutic uses, side effects and contraindications of the drugs, which are commonly prescribed for the treatment of various disease conditions.

Text book:

1. Satoskar R.S. & Bhandarkar S.D., Pharmacology and Pharmacotherapeutics. Revised 22nd edition, Popular Prakashan, Bombay, 2011.

Reference Books:

1. Tripathi KD, Essentials of Medical Pharmacology, 6th edition, Jaypee brothers, New Delhi, 2006.
2. Lippincott's Illustrated reviews: Pharmacology, MJ Mycek et al (Editor), Lippincott-Raven Publishers, New York, 3rd edition, 2001.
3. Katzung BG, Basic and Clinical Pharmacology, 8th edition, Prentice Hall, London, 2001
4. Goodman & Gilman's The Pharmacological Basis of Therapeutics, by JG Hardman (Editor), 10th edition, McGraw-Hill Publishing Co, 2001.
5. Pharmacology, HP Rang, MM Dale & JM Ritter (editors), 6th edition, Churchill Livingstone, 2007.

COURSE PLAN:



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Module	Lecture Session	Reference	Learning Objective
Cardiovascular Drugs	Renin-Angiotensin system	TB: Section VII	To understand the production of Ang II and its action through the receptors. To learn the drug mode of action, side effect and indication which are used for treating the cardiovascular and blood disorders.
	Antihypertensive drugs		
	Antianginal drugs		
	Antiarrhythmic agents		
	Cardiac Glycosides and drugs for heart failure		
	Hypolipidaemic drugs		
Drugs Acting on Kidney	Diuretics	TB: Section IX	
	Antidiuretics		
Drugs Affecting Blood and Blood Formation	Coagulants and anticoagulants	TB: Section VII	
	Fibrinolytics and Antifibrinolytics		
	Antiplatelet /antithrombotic drugs		
Drugs Acting on Respiratory System	Drugs for cough and bronchial asthma	TB: Section VI	
Gastrointestinal drugs	Drugs for peptic ulcer	TB: Section X	To learn the drug mode of action, side effect and indication which are used for treating the GIT disorders.
	Antiemetic drugs		
Antimicrobial Drugs	Concepts of chemotherapy, classification of chemotherapeutic drugs and general consideration	TB: Section XII	To learn the drug mode of action, side effect and indication which are used as chemotherapy
	Sulphonamides and Cotrimoxazole		
	Quinolones and fluoroquinolones		
	Beta -Lactam Antibiotics		
	Tetracyclines and Chloramphenicol		
	Aminoglycoside antibiotics		
	Macrolide antibiotics		
	Antitubercular drugs		
	Antileprotic drugs		
	Antifungal drugs		
	Antiviral drugs		
	Antimalarial drugs		
Hormones and Related Drugs	Thyroid hormones and thyroid inhibitors	TB: Section XIII	To learn the drug mode of action, side effect and



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	Corticosteroids		indication which are used for endocrine disorders.
	Insulin, Oral Hypoglycaemic drugs and glucagon		

Evaluation Scheme:

No.	Evaluation Component	Duration	Weight-age (%)	Date & Time	Nature of Component
1	Mid semester Exam	90 min	30		CB
2	Continuous Assessment*		35		CB/OB
5	Comprehensive Exam	120 min	35		CB

- ✓ ***Continuous assessment** may include quiz (zes), Laboratory - Day to Day work and quiz(zes), Viva-Voce, Home assignment, and Lab. component including Lab. Compre., etc.
- ✓ It is strongly advised that all students prepare their own class notes and relevant information from text, reference material, as in handouts would only be allowed for consultation during assessments of open book/notes. Photocopies of any material, written or printed will not be permitted. Stapled sheets, loose sheets of information written or printed, photocopies of slides used for discussion in class will not be allowed.
- ✓ Slides used during class hours provide key information for which additional supportive information is expected to be collected from sources aforementioned.
- ✓ Quiz (zes) may/will be conducted as a part of evaluation component, at random, during contact hours including lecture, tutorial hours, as convenient, with/without prior intimation and hence it is expected that the students come prepared to every class on topics covered in earlier contact hours. Regular classes will be held in designated tutorial hour to maintain continuity.
- ✓ Mid-Sem. Grading would be done once at least 30-40 % evaluation components are completed.
- ✓ For all evaluation components, information given during classroom instruction, aforementioned text books and reference books in the same order, will be considered as correct. Students are advised to follow the text, reference material as given in hand-out. All evaluation components are equally important, irrespective of weightage. Hence, students failing to attend scheduled classes, or absenting themselves in one or many of the evaluation components, may become ineligible for obtaining a valid grade at the end of the semester. Attendance in lectures and tutorials are all equally important as they are all integral components of learning, irrespective of weightage and may be taken into consideration, during grading.
- ✓ Any other adaptive changes in the handout, will be announced in class, if any.

Chamber Consultation Hour: To be announced in the class.

Make-up policy: Make-Ups are not given as a routine. It is solely dependent upon the GENUINENESS OF THE CIRCUMSTANCES under which a student fails to appear in a scheduled evaluation component. In such circumstances, prior permission should be obtained from the Instructor-in-Charge. In no case the make-up letter be slipped inside the chamber of the Instructor-In-Charge. The decision of the Instructor- in-Charge will be final.

Notices: Concerning this course will be displayed on Pharmacy Department notice board only.

Instructor-in-Charge
PHA F341