

Course Title:

313 PHL (Pharmacology)

Course description:

This course deals with the introduction of basic principles of pharmacology and the pharmacological actions, therapeutic uses, mechanisms of action, adverse effects, contraindications and drug interaction of autonomic drugs, cardiovascular drugs, diuretics, and autocoids.

The practical part deals of this course with some in-vitro experiments demonstrating the effects of the above mentioned drugs.

- Introduction and dose response curve of different doses of acetylcholine.
- Effects and site of action of different agonist drugs on the isolated rabbit intestine.
- Effects of certain agonists and their antagonists on the isolated rabbit intestine.
- Effects of certain agonists and their antagonists on the isolated guinea pig ileum.
- Dose response curve of acetylcholine and the effect of different drugs on isolated frog rectus abdominis.
- Effect of different drugs on the blood pressure of anaesthetized rabbit.
- Effect & site of action of different drugs on isolated rabbit's heart (Langendorff preparation).

In addition to the tutorial sections (group presentation) done by the students in different topics including:

- G-proteins, ion channels, adrenergic and cholinergic receptors, cotransmission, skeletal muscle relaxant, pharmaceutical forms, and glaucoma

Books:

- Rang & Dale's Pharmacology By Humphrey P. Rang, Maureen M. Dale, James M. Ritter, Rod J. Flower. 6th edition.
- Bertram G. Katzung Basic and Clinical Pharmacology.10th edition.

Labs Distribution:

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| Week 1 | Outlines for Good Presentation |
| Week 3 | Introduction & DRC of Different Doses of Acetylcholine |
| Week 4 | Effects and Sites of Action of Different Agonists Drugs (Stimulant or Relaxant) on The Isolated Rabbit Intestine |
| Week 5 | Determination of site of action of unknown drug using isolated rabbit intestine |
| Week 6 | Effect of Certain Agonists & their Antagonists on Isolated Guinea-pig Ileum |
| Week 7 | Dose Response Curve of Ach & The Effect of Different Drugs on Isolated Frog Rectus Abdominis |
| Week 8 | Effect & site of action of different drugs on isolated rabbit's heart |
| Week 9 | Tutorial (1) |
| Week 10 | Tutorial (1) |
| Week 11 | Tutorial (2) |
| Week 12 | Effect of different drugs on the blood pressure of anaesthetized rabbit |
| Week 13 | Revision (1) |
| Week 14 | Revision (2) |
| Week 15 | Quiz |
| Week | Practical Exam |

Marks Distribution:

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| Practical exam | 10 • |
| Quiz | 5 • |
| Reports | 2 • |
| Behavior | 1 • |

(Total mark = 18)