

## Course Overview

### Toxicology

<b>Course code :</b>	PMT601
<b>Course title:</b>	<b>Toxicology</b>
<b>Level/semester</b>	<b>Sixth semester</b>
<b>PRECEDING COURSES</b>	<b>General Chemistry I, General Chemistry II</b>
<b>Credit hours: 2</b>	<b>Theoretical: 2</b>
	<b>Practical: -</b>

#### Course Contents

1. General principles of toxicology, including definitions, areas and scope of toxicology, types and characterization of toxic effects, interactions between chemicals, mechanisms of toxicity, and general factors affecting toxicity.

2. General principles involved in the management and treatment of poisoning: causes and sources of poisoning, advantages, disadvantages and application of different methods and techniques including emesis, gastric lavage, activated charcoal, whole bowel irrigation, forced diuresis, alkalization and acidification of urine, hemodialysis, hemoperfusion, peritoneal dialysis, plasma-plasma exchange, as well as common antidotes used in the management and treatment of poisoning.

3. Different aspects of toxicity of selected therapeutic agents including sedative and hypnotics, non-steroidal anti-inflammatory agents, opioids, antihistamines, contraceptives, vitamins, etc. by studying the sources of exposure, mechanisms of toxicity, toxic doses, signs and symptoms of toxicity, and specific treatments involved.

4. Different aspects of toxicity of selected drugs of abuse and hallucinogens by studying the sources of exposure, mechanisms of toxicity, toxic doses, signs and symptoms of toxicity, and specific treatments involved.

5. Selected examples of food and animal poisoning including bacterial and fungal toxins in food, snake, scorpion and spider venoms, etc., emphasizing the source of exposure, signs and symptoms of toxicity, and specific treatments involved.

6. Different aspects of toxicity of selected non-therapeutic agents including pesticides, metals, gases, and solvents, involving sources of exposure, mechanisms of toxicity, signs and symptoms and specific treatments involved.

## **TOXICOLOGY COURSE OUTLINE**

<b>(A). <u>Topics of The Lectures Session:</u></b>		
<b>Topics to be Covered</b>	<b>No of Weeks</b>	<b>Contact Hours</b>
1. Course Overview & Introduction to Diagnostic Toxicology	1	2
2. General Classification of Poisons & Toxins	1	2
3. General aspects of diagnosis & management of Drug Poisoning and Intoxicant Substances	2	4
4. Sampling and Analytical Toxicology	1	2
5. Role Therapeutic Drug Monitoring (TDM) in Diagnostic Toxicology	2	4
6. Drug Abuse & Addiction	2	4
7. Environmental Toxicology	2	4
8. Heavy Metals Intoxication	2	4
9. Revisions	1	2
<b>Total</b>	<b>14</b>	<b>28</b>
<b>FINAL EXAM</b>		