

SILLABUS

Basic toxicology

1. Definition and purpose of toxicology. Toxicology subdisciplines.
2. Toxicology concepts and terminology.
3. Toxicokinetic – definition. Chemical transport of toxicants.
4. Absorption and distribution of toxicants.
5. Metabolism of toxicants.
6. Excretion of toxicants.
7. Mechanism of action of the toxicants. Toxicodynamic.
8. Types of toxic responses. Chemical interactions of toxicants.
9. Factors influencing toxicity.
10. Diagnostic toxicology.
11. Basic principles of therapy and management of toxicoses – general decontamination.
12. Basic principles of therapy and management of toxicoses – symptomatic treatment.
13. Basic principles of antidotal therapy. Classification of antidotes.
14. Classification of exogenous toxicants and toxicoses.

Special toxicology

15. Alkaloids – basic information;
16. Plants containing atropine and atropine-like alkaloids;
17. Plants containing pyrrolizidine alkaloids;
18. Plants containing nicotine and nicotine -like alkaloids;
19. Plants containing morphine-like alkaloids;
20. Miscellaneous plants containing alkaloids - *Veratrum alba*, *Taxus baccata*, *Aconitum*.
21. Miscellaneous plants containing alkaloids - *Colchicum autumnale*, *Ephedra vulgaris*, *Lolium temulentum*.
22. Glycosides – basic information.
23. Plants containing cyanogenic glycosides;
24. Plants containing thioglycosides (glucosinolates);
25. Plants containing cardiac glycosides;
26. Plants containing saponin-glycosides and protoanemonins;
27. Plants containing coumarin glycosides;
28. Plants containing tannins and gallotannins;
29. Plants containing glycoalkaloids;
30. Plants containing essential (ethereal) oils and resins;
31. Plants containing tiaminase;
32. Poisonous plants from Euphorbiaceae family – *Euphorbia* spp., *Ricinus communis*.
33. Plants containing oxalates;
34. Plants containing different toxic agents - *Gossypium*, *Lathyrus*, *Cannabis*.
35. Plants causing photosensitization;
36. Zootoxins - poisonous snakes and insects;
37. Nonprotein nitrogen toxicosis;
38. Water deprivation - sodium ion toxicosis;
39. Ionophore feed additives toxicoses;
40. Nitrate and nitrite toxicosis;
41. Carbohydrate (grain overload) toxicosis;
42. Anticoagulant rodenticides toxicosis;
43. Strychnine toxicosis;
44. Zinc phosphide and aluminium phosphide toxicosis.
45. Organochlorine toxicosis;
46. Organophosphate and carbamate toxicosis;

47. Pyrethrins and pyrethroids toxicosis;
48. Dipyridyl herbicides toxicosis;
49. Ethylene glycol toxicosis
50. Methyl alcohol toxicosis;
51. Detergents toxicosis;
52. Acids and alkalis toxicosis.
53. Lead toxicosis;
54. Arsenium toxicosis;
55. Mercury toxicosis;
56. Cooper toxicosis ;
57. Fluorosis;
58. Cadmium toxicosis;
59. Selenium toxicosis;
60. Iron toxicosis;
61. Aspirin and salicylate toxicosis;
62. Acetaminophen toxicosis;
63. Ivermectin toxicosis;