

Department	School of veterinary medicine
Program	Doctor of Veterinary Medicine(DVM)
Module title	Veterinary Pharmacology and Toxicology
Module code	Vetm-M3121
Module ECTS	13
Course title	Veterinary Toxicology
Course code	Vetm3123
Instructor's name & contact information	Name: Selamawit Fantahun (DVM, MSc, Associate. Prof)
Course information	Year: III Semester: II Meeting day : Monday and Wednesday Meeting time: 4.30:00-6:00 local time
Course description	The course deals on toxicants of veterinary importance. It deals with the sources, toxico-kinetics, toxico-dynamics, clinical manifestations, lesions, and management of toxicants as well as on major air and water pollutants of public health concern. It enables the student to diagnose cases of poisonings, consider toxicities in the differential diagnoses of other diseases including their management. Practical classes include demonstration of toxic plants of veterinary importance
Course Objectives	At the end of the course the student should be able to: ○ Identify the major toxicants of animal importance and their sources. ○ Gather and collate circumstantial evidences associated with poisonings. ○ Understand the clinical signs, lesions toxico-kinetics and toxico-dynamics of poisons. ○ Establish presumptive and confirmatory diagnoses of poisonings. ○ Consider poisoning in the differential diagnosis of diseases. ○ Know the principles of management of poisoning. ○ Know how to evaluate the toxic and effective doses of drugs under development.
Prerequisite	Vet. Biochemistry (I, II) and Vet. Pharmacology (I, II)
Mode of delivery	Parallel
Status of the course	Core
Course expectations	Students are expected to: ○ Plan their own learning ○ Participate during discussions and complete their assignments ○ Give constructive feedback to partners/ group members and the instructor ○ Attend all scheduled classes and other activities
Teaching & learning method	Lecture and case study (presentations); ○ Interactive teaching; lectures and discussions ○ Guided collaborative / individual independent learning

	○ Reading and writing assignments on selected topics, seminars or discussion; reports on demonstrations; strategic questions ○ Field visit				
Assessment Methods	Continuous assessment: 50% • Tests/quizzes • Assignments (individual and group) • Field visit reports Final Exam: 50%				
Students' Work Load	ECTS	Lecture	Lab	Private study	Total
	3	24	24	33	81
Policy	As per the guidelines of the university's senate legislation				

Schedule of the Course
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Units	Weeks	Contents	Activities
Unit I	I	Introduction Fields of toxicology Sampling and processing of samples	Lectures, discussion,self-reading
	II	Determination of toxic dose-response relationships	Lectures ,discussions self-reading, assignment
	III	Methods of establishing acute, sub-acute and chronic toxicities 1 st examination	Lectures ,discussions self-reading quiz
	IV -V	Diagnosis and management of toxicants	Lectures ,discussions self-reading,
Unit II	VI- VIII	Phytotoxicity (cyanide, glycosides, alkaloids, oxalates, nitrates and nitrites)	Lectures ,discussions self-reading, assignment, demonstrations
	IX	Agrochemicals (insecticides, herbicides, rodenticides) 2 nd examination	Lectures ,discussions self-reading quiz
	X-XI	Mineral toxicities (metals and nonmetals) Acids and alkalis,	Lectures ,discussions self-reading
	XII	Mycotoxieties Bacterial toxins	Lectures ,discussions self-reading, assignment
	XIII	Drug toxicities	Lectures ,discussions

		3 rd examination	self-reading,
	XIV	Zootoxins (venoms)	Lectures ,discussions Self-reading,
	XV-XVI	Environmental toxicants (air pollutants, water pollutants, radiation hazard)	Lectures ,discussions self-reading,
		Final examination	Written
Module and course evaluation	At the end of the course, students will be encouraged to evaluate the relevance and content of course as well as its compatibility to the module to which it is clustered. To this effect discussions with students will be held. Strong and weak points of the course and possible solutions will be considered critically to enrich the course content. Moreover, semi-structure questionnaire will be developed. The questionnaire will include both closed and open ended (but short answers) type of questions.		
Reference	○ Main- Garg S. 2001. Veterinary Toxicology, 1st edition ○ Chapters not dealt in the text will be compiled from different books/ journals ○ The national veterinary medical series Toxicology. Gary D. Osweiler. Williams and Wilkins the science of review (1996). ○ Casarett and Dull. The basic science of poisons. 7th ed. Curtis D. Lassen (2008) ○ A text book of modern toxicology. 3rd ed. John Wiley and sons. Wiley Inter Science (2004) ○ Clinical toxicology principles and mechanisms. Frank A. Barile (2005).		