

### LABORATORY ANIMAL SCIENCE

Semester	Subject code	Category	Lecture		Theory		Practical		Credits
			Total hrs	Hrs/ week	Total hrs	Hrs/ week	Total hrs	Hrs/ week	
III	POCMB3SS	Self study paper II	0	0	0	0	0	0	2

#### UNIT- I

General introduction to laboratory animals: Research animals of various species – Rat, Mouse, Rabbit, Guinea pig and Hamster. Animal ethics and welfare - basic guidelines and regulations related to use of animals in research and testing, writing and designing animal experimental protocol, roles and responsibility of the IAEC and CPCSEA.

#### UNIT-II

Laboratory animal breeding - inbreeding and out breeding, Animal nutrition: Basic nutritional requirements of lab animals, preparation and formulation of animal feed and storage Disposal of animal house wastes and used animals.

#### UNIT-III

Basic experimental animal techniques: Animal handling and restraining – anaesthesia, Laboratory uses of animals with special reference to Microbiology, pathogenicity testing, antibody production, toxin/toxoid testing, hypersensitivity testing, routes of drug administration, necropsy procedures and euthanasia.

#### UNIT- IV

Patho-physiology of commonly occurring diseases and their preventive measures: Health monitoring program and methodologies, basic techniques for detection of bacterial and viral diseases in laboratory animals, therapeutic and preventive measures.

#### UNIT-V

Record keeping and documentation: Recording and upkeep of various kinds of animal facility records of animal breeding, receipt, distribution of animals, feed and bedding, disposal etc.

#### REFERENCE BOOKS:

1. Canadian council on Animal Care-Guide to the care and use of experimental animals.
- 2.CPCSEAGuidelines.
- 3.Control of the Animal House environment 1976. Laboratory Animals Handbooks.
- 4.Guide for the care and use of Laboratory Animals. DHEW publication Washington 1978
- 5.Environmental monitoring in a laboratory Animal facility. Lab.Ani.sci.1976; 26:592

#### WEB SOURCES:

- 1.www.dircltri@dataone.in,
- 2.www.dircltri.tnchn@nic.in

#### SYLLABUS DESIGNER:

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