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Ex Pharm - Software

Computer Assisted Learning (CAL) - Animal Simulator Software



Adheres With

National Medical Commission - Guidelines



Listed With

SOS Tools-MOE Listed E Content



Listed With

Pharmacy Council of India Syllabus



Ex Pharm - Software

Virtual Pharmacology - Animal Simulator - Computer Assisted Learning (CAL) - Software

What is "Ex Pharm" - (Experimental Pharmacology) - Series Software

This is the computer assisted learning (CAL) software, containing various programs which simulate animal experiments in pharmacology. The modules in the software can be used to demonstrate effect of drugs on different animals systems. The software is being used and trusted by pharmacologists from many years. The package is user friendly, highly interactive and full of animated sequences which make simulation appear realistic.

About Us : Legacy of 20 Years

Bureau for Health and Education Status Upliftment is a trusted name in education domain from past 20 years and "Ex Pharm" software from "Bureau for Health and Education Status Upliftment" is Number 1 Brand Name for Pharmacology Experiments Software in India, in terms of subscribers as it is having more than five thousand satisfied users.

In the history of past years few efforts were made by individual pharmacologists to design few modules for pharmacology experiments because those were not easy to use and also not covering all modules of syllabus, so to provide a comprehensive solution to students and faculty, many renowned Pharmacologists from whole India came together at the platform of "Bureau for Health & Education Status Upliftment" for well-executed and organized launch of computer assisted learning (CAL) and animal simulation software with the Brand Name "Ex Pharm". The proprietorship of "Bureau for Health & Education Status Upliftment" owns the Registered Trade Mark of Ex Pharm (Legal- Intellectual Property Rights to sell the brand "Ex Pharm") from Govt. of India.

Since decades "Ex Pharm" from "Bureau for Health and Education Status Upliftment" is most trusted name, as it is providing high quality modules with comprehensive coverage of pharmacology syllabus of Medical, Pharmacy and Veterinary courses. It is being used by almost all AIIMS and many institutions of National Importance in Medical, Pharmacy & Veterinary Domain. It adheres NMC guidelines, it is recommended in syllabus section by PCI (Pharmacy Council of India) and also listed as E-Content with SOS Tools (Software & Simulation Tools) empaneled by – MOE (Ministry of Education) Govt. of India.



The current version of "Ex Pharm" - (Experimental Pharmacology) - Series Software consists of following computer simulated experiments:

- 01-05. Experiment on effects of various drugs (Mydriatic, Miotic and Local Anaesthetic) on rabbit's eye.
 - 01 - Epinephrine
 - 02 - Atropine
 - 03 - Ephedrine
 - 04 - Physostigmine
 - 05 - Lignocaine
06. Study of analgesic activity with the help of "Tail Flick Apparatus" (Analgesiometer).
07. Study of analgesic activity with the help of "Hot Plate Apparatus" (Analgesiometer).
08. To study analgesic activity by "Writhing Test".
09. Study of "Antihistaminic drugs/Anti allergic" drugs by mast cell stabilization method with help of "Histamine Chamber".
10. Study of "Muscle Relaxant" activity with the help of "Rota-Rod Apparatus".
11. Study of "CNS Depressants & Stimulants" Using "Actophotometer".
- 12-14 . Study of drugs acting on CNS (Including Anxiolytic Activity) using following modules
 - a. Elevated Plus Maze Method
 - b. Pole Climbing Method
 - Evaluation of Anti Psychotic Drugs
 - Evaluation of Sedative Drugs
15. Study of anticonvulsant activity using "Electro Convulsimeter".
16. To study PTZ induced convulsions in mice.
17. Study of effect of hepatic microsomal enzyme inducers on the phenobarbitone sleeping time in mice.
18. To study the action of strychnine/ anaesthetic on frog neurons (excitability).
19. Test for pyrogens using rabbits.
20. Effect of drugs on isolated guinea pig ileum (in-vitro).
21. To study respiratory depression effect on rabbit.
22. Study of stereotype and anti-catatonic activity of drugs on mice.
23. Experiments on thyroid and antithyroid drugs
 - The effect of thyroxin, TSH and propylthiouracil on metabolism.
24. Experiments on blood sugar
 - The effect of insulin (hypoglycemic activity) and alloxan on blood glucose.
25. Study of anti-inflammatory activity using carrageenan induced paw oedema method
26. Study of diuretic activity using metabolic cage
- 27-30. Experiments on amphibian nerve-muscle (sciatic nerve and gastrocnemius muscle) preparation.
 27. Recording of Simple Muscle Twitch
 28. Effect of Temperature
 29. Effect of stimuli of increasing frequency.
 30. Effect of stimuli of increasing strength.
- 31-38. Experiment on effect of various drugs on isolated frog's heart. (DRC- Dose Response Curve)
 31. Epinephrine
 32. Norepinephrine
 33. Isoprenaline
 34. Calcium chloride
 35. Propranolol
 36. Acetylcholine
 37. Potassium chloride
 38. Atropine sulphate
- 39-53. Experiments on effect of different drugs on dog BP & heart rate.
 - Virtual Practice- Effects of drugs on the dog BP and heart rate.
 39. Epinephrine (Adrenaline)
 40. Norepinephrine (Noradrenaline)
 41. Isoprenaline
 42. Acetylcholine
 43. Histamine
 44. Ephedrine
 45. Phentolamine
 46. Propranolol
 47. Atropine
 48. Cimetidine
 49. Carotid Occlusion
 50. Central Vagus
 51. Peripheral Vagus.
 - Effects of vasopressor and vasodepressor with appropriate blockers.



52. Virtual Practice- Reversal action of adrenaline on blood pressure and heart rate.
53. Virtual Practice- Reversal action of acetylcholine on blood pressure and heart rate.
- 54-55. Experiments on "Lagendorff's Apparatus".
- Effect of coronary vasodilators on isolated heart
- Effect of parasympathomimetics
56. Experiment on bioassay of histamine on the ileum of guinea pig.
- 57-60. Bioassay of acetylcholine on the isolated rectus abdominis muscle of frog
(a) By Matching Method (b) By Interpolation Method
(c) By 3 Point Method (d) By 4 Point Method.
- 61-64. Bioassay of oxytocin on the isolated rat uterine horn by following methods
(a) By Matching Method (b) By Interpolation Method
(c) By 3 Point Method (d) By 4 Point Method.
- 65-68. Bioassay of serotonin on the isolated rat fundus strip by following methods
(a) By Matching Method (b) By Interpolation Method
(c) By 3 Point Method (d) By 4 Point Method.
69. To record the DRC and to determine the pD₂ value for acetylcholine on frog rectus abdominis muscle.
70. Determination of pD₂ value of histamine on guinea pig ileum.
71. Determination of pD₂ value of serotonin on rat stomach (fundus part) strip.
72. Determination of pA₂ Value of prazosin using rat anococcygeus muscle (by Schild's plot method)
73. Study of anti-ulcer activity - using pylorus ligation method.
74. Evaluation of effect of acetylcholine (spasmogens) using rabbit jejunum.
75. Evaluation of effect of different drugs on ciliary motility.
76. Evaluation of effect of saline purgatives on frog intestine.
- 77-78. Determination of acute irritation of a test substance.
- Skin irritation (Including edema formation)
- Eye irritation
- * In addition to above mentioned interactive experiments, modules are provided for following:
79. Different routes of drug administration.
80. Blood withdrawal techniques.
81. Methods of anaesthesia & euthanasia.
82. Animals used in experimental pharmacology.
83. Instruments used in experimental pharmacology.
84. Physiological salt solutions used in experimental pharmacology.

* Additionally "Examination Mode" is provided for the experiments.

* Covers specific supportive physiology modules also, to provide better understanding of pharmacology modules.

* Separate observation table/finding download option is available for each student, with student name and experiment readings/findings.





Why it is Necessary

As per National Medical Commission

NMC has issued MSR for Medical Colleges through Gazette Notification, Dated 29 Oct 2020. The mentioned regulations has stated that pharmacology experiments should be done by computer assisted learning software.

As per Medical Council of India

MCI has issued guidelines through Gazette Notification No. MCI-34(41)/2013-Med./64022; Dated 19 March 2014. The mentioned guidelines has stated that "For teaching Physiology and Pharmacology in UG curriculum, the required knowledge and skills should be imparted by using Computer Assisted modules".

As per Pharmacy Council of India

- a. PCI has issued guidelines through Gazette Notification No.10- 1/2012- PCI;Dated 25 August 2014. The mentioned guidelines has stated that "Wherever animal experimentations are prescribed in the curriculum, the required knowledge and skill should be imparted by using computer assisted modules".
- b. PCI (Pharmacy council of India) has issued the latest notification, Dated : 25 Nov 2019, Ref. No: 10-1/2019-PCI (PT- 1)/6644-46 as per that " Wherever animal experiments are being conducted using simulations, the requirement of Animal House & registration with CPCSEA is not Required for such institutions"
- c. The Education Regulations, 2020 - Recommends Ex Pharm Software for Pharmacology Experiments

As Per Veterinary Council of India

As per Veterinary Council of India (Minimum Standards of Veterinary Education)- Degree Course (B.V.Sc. & A.H.) Regulations,2016, all veterinary colleges should have simulation laboratory

Subscription Procedure:

1. The software can be subscribed by filling online subscription form.
2. The software can also be subscribed by sending the filled subscription form with the requisite fees (as mentioned in form), on below mentioned address

Address:

Director

Digital Service Division

Bureau for Health & Education Status Upliftment

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55/20, Rajat Path, Mansarovar,Jaipur, Rajasthan,PIN-302020 (India).

**Latest version of "Ex Pharm" software provides compatibility updation service with latest versions of operating systems (Windows, Ubuntu etc.) for institutional computers, without any additional cost.*



Frequently Asked Questions:

Which software is used for performing pharmacology experiments/practical ?

"Ex Pharm" - Experimental Pharmacology Series software is used mainly to perform pharmacology experiments/practical, by the help of this software students can perform pharmacology experiments through "Computer Assisted Learning (CAL)" and "Animal Simulation" without harming the animals.

What is animal simulation software for pharmacology / What is animal simulator software for pharmacology ?

Animal simulation software for pharmacology is the software which is used to perform pharmacology experiments by simulation techniques. The "Ex Pharm" - Experimental Pharmacology Series software is used for this purpose.

What is CAL in Pharmacology ?

CAL is Computer Assisted Learning in Pharmacology, in which pharmacology experiments are performed by using computer virtual software. The "Ex Pharm" - Experimental Pharmacology Series software is used for this purpose.

For whom is the software ?

"Ex Pharm" - Experimental Pharmacology Series Software is aimed for medical, pharmacy, ayurveda, veterinary, dental science and physiotherapy students. The software can also be used by the students of paramedical courses such as nursing, medical laboratory technology etc.



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SUBSCRIPTION FORM
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COMPUTER ASSISTED LEARNING (CAL) - ANIMAL SIMULATOR SOFTWARE

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	Particular	Duration	Price (Inclusive of Installation & Delivery Charges)	Price (Including GST)	Tick in Applicati on Box
Mob. No. Email	Ex Pharm Software (Covering all experimental pharmacology modules as per PCI - NMC - VCI Syllabus) + Dual Exam Mode + Additional Supportive E Resources))	1 Year (For all active Experimental modules)	9,920 ₹	11,705 ₹	<input type="checkbox"/>
Subscription Year		3 Year (For all active Experimental modules)	25,040 ₹	29,547 ₹	<input type="checkbox"/>
.....	Ex Pharm Software (All experimental pharmacology modules of B.Pharm - D.Pharm syllabus as per PCI) + Exam Mode))	1 Year (For all active Experimental modules)	4,150 ₹	4,897 ₹	<input type="checkbox"/>
.....		5 Years (For all active Experimental modules)	16,200 ₹	19,116 ₹	<input type="checkbox"/>
*Customized Packages (For desired duration/modules) are also available.					

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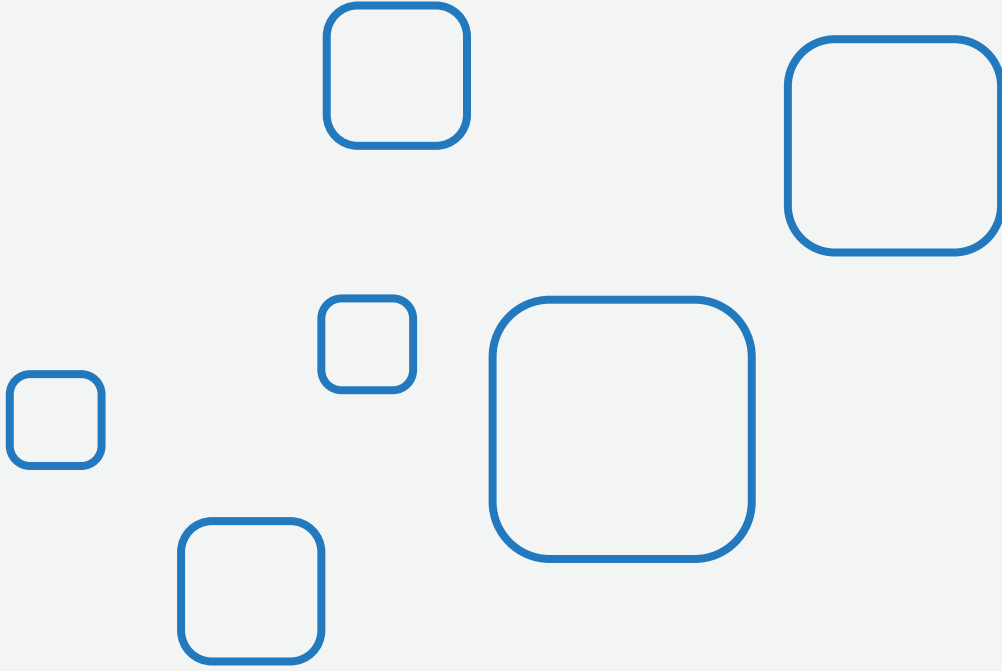
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