



University of Minho
School of Medicine

SURGERY, NEUROSURGERY AND ADVANCED ANESTHESIA IN LABORATORY RODENTS

May 12-23, 2025

Week 1

Day	Start	End	Theme
12/05/2025	09:15	09:30	Welcome
	09:30	10:30	Anesthesia in laboratory animals: what, when, why? - Part I
	10:45	11:30	Anesthesia in laboratory animals: what, when, why? - Part II
	11:30	13:00	Anesthetic management and preventing problems
	14:00	15:30	General and local anesthesia (Materials, equipment and principles) - Class A
			Self-study, case study preparation, project license preparation - Class B
	16:00	17:30	General and local anesthesia (Materials, equipment and principles) - Class B
			Self-study, case study preparation, project license preparation - Class A
13/05/2025	09:00	10:15	Impact of anesthesia and analgesia in experimental results
	10:15	11:15	Mechanical ventilation in laboratory rodents
	11:30	13:00	Intraoperative monitoring in rodents: FC, FR, SpO2, EtCO2
	14:00	15:45	Endotracheal intubation (direct visualization, videoendoscopic and tracheostomy) - Class A
			Mechanical ventilation and intraoperative monitoring - Class B
	16:00	17:45	Endotracheal intubation (direct visualization, videoendoscopic and tracheostomy) - Class B
			Mechanical ventilation and intraoperative monitoring - Class A
14/05/2025	09:00	10:15	What is pain?
	10:15	11:15	Analgesics and pain alleviation
	11:30	13:00	Post-operative monitoring and care
15/05/2025	09:00	10:15	Aseptic technique for surgical procedures: preparing the surgery, the equipment, the team & the animal
	10:15	11:15	Principles of surgical technique: incisions, hemostasis, suture, wound management
	11:30	13:00	Post-operative infection and antibiotics. Fluidtherapy.
	14:00	15:30	Aseptic technique and surgical field preparation - Class A
			Advanced suturing and other wound closure techniques - Class B
	16:00	17:30	Aseptic technique and surgical field preparation - Class B
			Advanced suturing and other wound closure techniques - Class A
16/05/2025	09:00	10:30	Self-study, case study preparation, project license preparation - Class A + B
	10:30	12:00	Self-study, case study preparation, project license preparation - Class A + B
	13:00	14:15	General surgical techniques reproductive system: ovariectomy, orchidectomy/vasectomy
	14:15	15:15	General surgical techniques: laparotomy
	15:30	17:00	Specific surgical techniques: good practices in stereotaxic brain surgery

Week 2

Day	Start	End	Theme
19/05/2025	09:00	10:00	Surgical field and animal preparation - Class A
	09:00	12:30	Self-study, case study preparation, project license preparation. Suturing self-training in rubber and ex-vivo models - Class B
	10:00	12:30	Ovariectomy/ Orchidectomy/ Vasectomy Part I - Class A
	14:00	16:00	Ovariectomy/ Orchidectomy/ Vasectomy Part II - Class A
	14:00	16:30	Necropsy - Class B
	16:00	17:00	Post-operative monitoring (records, pain assessment, pain alleviation, wound healing and management) Laparotomy; Ovariectomy/ Orchidectomy/ Vasectomy - Class A
20/05/2025	09:00	10:00	Surgical field and animal preparation - Class B
	09:00	12:30	Self-study, case study preparation, project license preparation. Suturing self-training in rubber and ex-vivo models - Class A
	10:00	12:30	Ovariectomy/ Orchidectomy/ Vasectomy Part I - Class B
	14:00	16:00	Ovariectomy/ Orchidectomy/ Vasectomy Part II - Class B
	14:00	16:30	Necropsy - Class A
	16:00	17:00	Post-operative monitoring (records, pain assessment, pain alleviation, wound healing and management) Laparotomy; Ovariectomy/ Orchidectomy/ Vasectomy - Class B
21/05/2025	09:00	12:00	Self-study, case study preparation, project license preparation. Suturing self-training in rubber and ex-vivo models - Class A
			Stereotaxic surgery Part I - Class B
	14:00	16:00	Stereotaxic surgery Part II - Class B
			Prolonged anesthesia for imaging procedures: Ultra-High Frequency Ultrasound imaging procedures - Class A
	16:00	17:00	Self-study, case study preparation, project license preparation. Suturing self-training in rubber and ex-vivo models - Class B
			Post-operative monitoring (records, pain assessment, pain alleviation, wound healing and management) Laparotomy; Ovariectomy/ Orchidectomy/ Vasectomy - Class A
22/05/2025	09:00	12:00	Self-study, case study preparation, project license preparation. Suturing self-training in rubber and ex-vivo models - Class B
			Stereotaxic surgery Part I - Class A
	14:00	16:00	Stereotaxic surgery Part II - Class A
			Prolonged anesthesia for imaging procedures: Ultra-High Frequency Ultrasound imaging procedures - Class B
	16:00	17:00	Self-study, case study preparation, project license preparation. Suturing self-training in rubber and ex-vivo models - Class A
			Post-operative monitoring (records, pain assessment, pain alleviation, wound healing and management) Laparotomy; Ovariectomy/ Orchidectomy/ Vasectomy - Class B
23/05/2025	09:00	12:00	Self-study, case study preparation, project license preparation. Suturing self-training in rubber and ex-vivo models - Class A + B
	16:30	18:30	Final exam