

	UKZN FCA Part 1 Tutorial program 2026 Venue: Zoom on Wednesdays 15h00-17h00	
Date	Topic	Lecturer
21 Jan	Introduction. Syllabus. Course structure. Study and exam techniques	Nishen Gokal
	SI Units. Mathematical concepts	Kom Govender
28 Jan	FCA Part 2 exam	
4 Feb	Manufacture, storage and supply of anaesthetic gases. Breathing systems	Safwana Essa
11 Feb	Pharmacodynamics. Drug interactions.	Nishen Gokal
18 Feb	FCA Part 1 exam	
25 Feb	DA exam	
4 Mar	The gas laws. Pressure gauge and regulators. Flowmeters.	Kom Govender
11 Mar	Anaesthesia machine. Scavenging. Humidification.	Abongile Sukwana
18 Mar	Altitude. Diving. Bronchodilators. Agents affecting pulmonary circulation.	Nobuhle Nkosi
25 Mar	Pharmacokinetics. Pharmacogenetics. Pharmacogenomic	Prof A. Milner
1 Apr	Heat capacity, latent heat. Vapourisers. Vapour analysis.	Kom Govender
8 Apr	Cell physiology. Body water. Osmolality. Osmolarity. Electrolytes. Basic genetics.	Dhamiran Naidoo
15 Apr	Fires and explosion. Lasers. Isotopes and radiation.	Jemimah Kibirige

22 Apr	Blood cells. Haemostasis. Blood groups and blood transfusion. Drugs influencing haemostasis. Intravenous fluids. Tests of coagulation	Kim de Vasconcellos
29 Apr	Immune system. Hypersensitivity. Antibacterials. Antivirals. Immunosuppressive agents. Chemotherapy	Kroshlan Kistan
6 May	Action potentials. Nerve excitability. Synaptic transmission. Neurotransmitters. Local anaesthetics	Marwala Pule
13 May	Intermediary metabolism. Nutrition. Exercise. Temperature regulation and temperature measurement.	Avintha Ramkisson
20 May	Muscle physiology. Skeletal and cardiac muscle. Neuromuscular transmission. Reflexes. Smooth muscle. Drugs affecting the neuromuscular junction and cholinergic receptors.	Maseoke Mapodile
27 May	Spinal cord. Sensory system. Motor function. Physiology of pain. Drugs used in the relief of acute and chronic pain.	Mthobisi Mlitwa
3 Jun	Formation and flow of CSF. Cerebral blood flow. Intracranial pressure. Brain metabolism. Cerebral oximetry. Evoked potentials.	Msizi Ndlovu
10 Jun	Consciousness and sleep. Depth of anaesthesia monitoring. Neuromuscular monitoring	John Krynauw
1 Jul	FCA Part 2 exam	
8 Jul	Generation and conduction of the cardiac impulse. Normal ECG. Common arrhythmias. Antiarrhythmic drugs. ECG machine.	Matthew Nel
15 Jul	DA (SA) exam	

22 Jul	Drugs producing anxiolysis, sedation, neuroleptosis and amnesia. Neuropsychiatric drugs. Illicit drugs.	Karusha Rangai
29 Jul	FCA (SA) Part 1 exam	
5 Aug	Electricity and electrical safety. Diathermy. Defibrillator	Dhamiran Naidoo
12 Aug	Systemic circulation and microcirculation. Regulation of blood pressure. Drugs used in the treatment of hypertension and cardiac failure. Myocardial protection.	Ted Sommerville
19 Aug	UKZN Clinical course	
26 Aug	Autonomic nervous system. Drugs blocking and stimulating autonomic pathways. Pathophysiology of shock. Vasopressors and inotropes.	Kim de Vasconcellos
2 Sept	Blood pressure measurement. CVP measurement.	David Skinner
9 Sept	Cardiac output monitoring. Ultrasound and Doppler.	David Skinner
16 Sept	Respiratory mechanics. Pulmonary function testing. Control of respiration. Ventilator graphics.	Prashant Gokal
23 Sept	Carriage of oxygen and CO ₂ in blood. Gas exchange in the lungs. Ventilation / perfusion interplay.	Nishen Gokal
30 Sept	Cardiopulmonary interactions. Physiological effects of mechanical positive ventilation.	Diran Pillay
7 Oct	Oxygen, CO ₂ and inhalational agents' measurements. Electrodes..	Luansha Naicker
14 Oct	Renal physiology. Renal failure. Renal Replacement Therapy. Diuretics. Contrast media.	Guido Ferreira

21 Oct	Acid-base physiology. Approach to blood gas analysis.	Ezile Ninise
28 Oct	Solubility and diffusion of gases. Inhalation agents.	Gunseli Malleck
4 Nov	Endocrine physiology and pharmacology	Syndrini Reddy
11 Nov	Gastro-intestinal physiology. Antiemetics. Liver. Liver function tests.	Kashvir Allopi
18 Nov	Physiology of pregnancy. Placental physiology. Neonatal physiology. Ageing. Uterine smooth muscle agents.	Sanusha Reddy
25 Nov	Statistics 1: Basic concepts.	Kom Govender
2 Dec	Statistics 2: Applied statistics.	Kom Govender