

Faculty of Information and Communication Engineering

B.E. Biomedical Engineering

(R 2017) Semester – II

BM8211 BIOCHEMISTRY LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Colorimeter	2		
2.	Spectrophotometer	1		
3.	pH meter	1		
4.	Weighing balance	1		
5.	Refrigerator	1		
6.	SDS gel electrophoresis	1		
7.	TLC, ready TLC plates	1		
8.	Wintrobe's tube	2		
9.	Centrifuge Normal	1		
10.	Microslides (packets)	2		
11.	Lancet (boxes)	5		
12.	Microscope	1		
13.	Neubaur's Chamber	2		
14.	Heparinized Syringe (box)	1		
15.	Haemoglobinometer	1		
16.	Elisa reader	1		
17.	Capillary tubes (box)	1		

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(R 2017) Semester – III

BM8311 PATHOLOGY AND MICROBIOLOGY LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	UV-Vis Spectrophotometer	1		
2.	Colorimeter	2		
3.	Electronic Weighing balance	1		
4.	Optical Microscope	1		
5.	Centrifuge	1		
6.	cryosectioning	1		
7.	Hot air oven	1		
8.	Incubator	1		
9.	Autoclave	1		
10.	Fridge	1		
11.	PH meter	1		
12.	Homogeniser	1		
13.	magnetic stirrer	1		
14.	Sonicator	1		
15.	vortex mixer	2		
16.	laminar air flow	1		
17.	Wax dispenser	1		
18.	slide dispenser	1		

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(R 2017) Semester – III

BM8312 DEVICES AND CIRCUITS LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	BC 107	25		
2.	BC 148	25		
3.	2N2646	25		
4.	BFW10	25		
5.	1N4007	25		
6.	Zener diodes	25		
7.	Resistors, Capacitors, Inductors (sufficient quantities)	25		
8.	Bread Boards	15		
9.	CRO (30MHz)	10		
10.	Function Generators (3MHz)	10		
11.	Dual Regulated Power Supplies(0-30V)	10		

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(R 2017) Semester – III

BM8313 HUMAN PHYSIOLOGY LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Microscope	2		
2.	Centrifuge Normal	1		
3.	Wintrobe's tube	2		
4.	PCV tube	2		
5.	Neubaur's Chamber	2		
6.	Heparinized Syringe	1		
7.	Haemoglobinometer	1		
8.	Blood grouping kit	1		
9.	Capillary tubes	1		
10.	Ophthalmoscope	1		
11.	Tuning fork (256Hz to 512Hz)	5		
12.	Microslides (Packets)	2		
13.	Lancet (boxes)	5		

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(R 2017) Semester – IV
EC8381 FUNDAMENTALS OF DATA STRUCTURES IN C LABORATORY
Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	PC with C compiler	30		

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(R 2017) Semester – V

BM8511 BIO MEDICAL INSTRUMENTATION LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	pH meter and conductivity meter	1		
2.	Photo transducer for pulse measurement	1		
3.	Sphygmomanometer and Stethoscope	1		
4.	Blood flow measurement system	1		
5.	Multiparameter (ECG, EMG, EEG) Simulator	2		
6.	Function generator	8		
7.	DSO	8		
8.	Regulated Power supplies	8		
9.	Bread boards	8		
10.	IC LM 324	20		
11.	AD 620	20		
12.	INA series (126,128 etc.)	20		
13.	555 Timer	20		
14.	Opto Isolator IC: MCT2E	1		
15.	Software tool for PCB design	1		

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(R 2017) Semester – V

EC8562 DIGITAL SIGNAL PROCESSING LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	PCs with Fixed / Floating point DSP Processors (Kit / Add-on Cards)	15		
2.	MATLAB with Simulink and Signal Processing Tool Box or Equivalent Software in desktop systems	15		
3.	Signal Generators (1MHz)	20		
4.	CRO (20MHz)	20		

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(R 2017) Semester – VI
BM8611 DIAGNOSTIC AND THERAPEUTIC EQUIPMENT LABORATORY
Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Visually evoked potential setup	1		
2.	GSR setup	1		
3.	Multi-output power supply (+15v, -15v, +30V variable, +5V, 2A)	2		
4.	Short wave Diathermy	1		
5.	Ultrasound diathermy	1		
6.	Multiparameter biotelemetry system	1		
7.	Electrical Safety Analyser	1		
8.	Spirometry with associated analysis system	1		
9.	ECG Simulator	1		
10.	Medical stimulator	1		
11.	Surgical diathermy with analyzer	1		
12.	Audiometer	1		
13.	Pacemaker	1		
14.	Defibrillator	1		

15.	Haemodialysis model	1		
16.	Heart lung Model	1		
17.	Ventilator	1		
18.	Ultrasound Scanner	1		
19.	Software to Analyze ECG,EEG and EMG	1		

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(R 2017) Semester – VI
EC8681 MICROPROCESSOR AND MICROCONTROLLER LABORATORY
Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	8086 Microprocessor trainer kit with power supply	15		
2.	8051 Microcontroller trainer kit	15		
3.	Traffic light control interfacing card compatible with 8086 & 8051 kits	5		
4.	Stepper motor control interfacing compatible with 8086 & 8051 kits	5		
5.	Digital clock interfacing board compatible with 8086 & 8051 kits	5		
6.	Keyboard & Display Interface board compatible with 8086 & 8051 kits	5		
7.	Printer interfacing card compatible with 8086 & 8051 kits	5		
8.	A/D and D/A interfacing card compatible with 8086 & 8051 kits	5		
9.	Serial and Parallel Interfacing card compatible with 8086 & 8051 kits	5		

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(R 2017) Semester – VII

EC8762 DIGITAL IMAGE PROCESSING LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	PCs with related accessories (Intel CORE 2 Duo(Minimum) or Intel I5, I7(latest), RAM-2GB (Minimum), Hard Disk – 1TB)	30		
2.	MATLAB (Latest Version) 17A or 18, Image processing tool box	15 user license		