

**Faculty of Civil Engineering  
M. E. Environmental Engineering  
Regulations 2021 Semester: I**

<b>Course Code: EV4111      Course Title: ENVIRONMENTAL CHEMISTRY LABORATORY</b>		
<b>Sl. No.</b>	<b>Description of Equipment</b>	<b>Required numbers (for batch of 25 students)</b>
1.	pH Meter	2
2.	Burette (50 mL)	20+5
3.	Burette (25 mL)	5+2
4.	Pipette 1 mL	10+2
5.	Pipette 2 mL	10+2
6.	Pipette 10 mL	10+2
7.	Measuring Cylinder 10 mL	5+2
8.	Measuring Cylinder 25 mL	5+2
9.	Measuring Cylinder 50 mL	5+2
10.	Measuring Cylinder 100 mL	5+2
11.	Measuring Cylinder 500 mL	2+1
12.	Measuring Cylinder 1000 mL	2+1
13.	Volumetric Flask 100 mL	5+2
14.	Volumetric Flask 250 mL	5+2
15.	Volumetric Flask 500 mL	5+2
16.	Volumetric Flask 1000 mL	5+2
17.	Conductivity Meter	1
18.	Spectrophotometer (uv-vis)	1
19.	Nephelometer	1
20.	TKN Analyser	1

21.	TKN Digestion Unit (6 heating unit)	2
22.	COD Digestion Unit Setup (6 heating mantle)	2
23.	Atomic Absorption spectrophotometer (AAS)	1
24.	Flame photometer	1
25.	Weighing balance (0.0001g)	1
26.	Weighing balance (0.01g)	1
27.	Refrigerator	1
28.	Water bath	1
29.	Heavy Metal Analyser	1

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<b>Course Code: EV4112      Course Title: ENVIRONMENTAL MICROBIOLOGY LABORATORY</b>		
<b>Sl. No.</b>	<b>Description of Equipment</b>	<b>Required numbers (for batch of 25 students)</b>
1.	Conical Flasks (500 mL)	4+2
2.	Autoclave (20 L) 121oC temperature Pressure : 15 lbs	1
3.	Test tubes (20 mL)	120+30
4.	Petri plates	120+30
5.	Incubator (Bacteriological)	1
6.	Hot air oven	1
7.	Laminar Air Flow Chamber	1
8.	Measuring Cylinder 25 mL	5+2
9.	Measuring Cylinder 50 mL	5+2
10.	Measuring Cylinder 500 mL	2+1
11.	Measuring Cylinder 1000 mL	1+1
12.	Colony counter	1
13.	Electronic Balance (0.0001g)	1
14.	Electronic Balance (0.001g)	1
15.	Table Shaker	1
16.	Spectrophotometer (uv-vis)	1
17.	BOD Incubator	1
18.	Bioreactor Batch type (for cultivation of microorganisms)	1
19.	Test Tubes (20MI)	120+30
20.	Conical Flask (250 mL)	50+10

21.	Beaker (250mL, 500mL, 1000mL) each	5+2
22.	Micro Pipette (250 $\mu$ L, 500 $\mu$ L, 1000 $\mu$ L) Each	1+1
23.	Pipette Tips	4+2
24.	Water bath	1
25.	Membrane Filtration setup with vacuum pump	1
26.	Deep Freezer	1
27.	Refrigerator	1
28.	Centrifuge	1
29.	Compound Microscope	1

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**EV4211 ENVIRONMENTAL AND PROCESSES MONITORING LABORATORY**

<b>Sl. No.</b>	<b>Description of Equipment</b>	<b>Required numbers</b>
1.	Jar test apparatus	2
2.	One litre beaker	6
3.	Settling column	1
4.	Sieves and shaker	1
5.	Burette	20
6.	Pipette and bulb	20
7.	Noise metre	1
8.	High volume sampler	1
9.	glass tray	10 for AOP
10.	digital weighing balance	1
11.	Whatman filter paper	2 packets
12.	Spectrophoto meter UV/vis	1
13.	pH metre	1
14.	conductivity metre -1 centrifuge	1
15.	conical flask	10
16.	beaker	10 as required
17.	turbidity metre	1
18.	imhoff cone	2
19.	Crucible	20
20.	Hot air oven	1
21.	Muffle furnace	1
22.	Water bath	1
23.	Dessicator	1
24.	standard flask	6 as required
25.	measuring jar	6
26.	SDI unit	1
27.	Timer	1
28.	Vaccum pump	1
29.	Funnel	1