

Faculty of Civil Engineering

B.E. Civil Engineering

(R 2017) Semester – II

CE8211 COMPUTER AIDED BUILDING DRAWING

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	AUTOCAD	30		

Faculty of Civil Engineering
B.E. Civil Engineering
(R 2017) Semester – III
CE8361 SURVEYING LABORATORY
Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Total Station	3		
2.	Theodolites	6		
3.	Dumpy level / Filling level	6		
4.	Pocket stereoscope	1		
5.	Ranging rods(set)	6		
6.	Leveling staff(set)	6		
7.	Cross staff(set)	6		
8.	Chains(set)	6		
9.	Tapes(set)	6		
10.	Arrows(set)	6		
11.	Prismatic Compass	10		
12.	Surveyor Compass	2		
13.	Survey grade or Hand held GPS	3		

Faculty of Civil Engineering

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(R 2017) Semester – III

CE8311 CONSTRUCTION MATERIALS LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Compression testing machine	1		
2.	Flexure testing machine	1		
3.	Sieve set (IS sieves 4.75 mm, 2.36 mm, 1.1.8 mm, 600 micron, 300 micron, 150 micron and 75 micron)	2		
4.	Weighing Balance or scale (accuracy 0.5g)	1		
5.	Pycnometer	2		
6.	Cylindrical metal measure of 3 litre capacity	2		
7.	Tamping rod	3		
8.	Aggregate Crushing Value Apparatus	1		
9.	Aggregate Impact Value Apparatus	1		
10.	IS sieves 12.5 mm, 10 mm and 2.36 mm	2		
11.	Weighing Balance or scale (accuracy 1 g)	1		
12.	Length gauge	2		
13.	Thickness gauge	2		
14.	IS Sieves 40 mm,31.5 mm, 25 mm, 20mm, 16mm, 12.5 mm, 10mm, 6.3 mm	2		
15.	Slump cone apparatus	2		
16.	Compaction factor apparatus	1		
17.	Concrete Cubes	6		
18.	Concrete Cylinders	6		
19.	Beam Mould	6		

20.	Concrete mixing machine	1		
21.	Oven	1		
22.	Shallow flat bottom dish	2		
23.	Trowels and Pans	1		

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B.E. Civil Engineering
(R 2017) Semester – IV
CE8481 STRENGTH OF MATERIALS LABORATORY
Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	UTM of minimum 400 KN capacity	1		
2.	Torsion testing machine	1		
3.	Izod impact testing machine	1		
4.	Hardness testing machine-Rockwell	1		
5.	Hardness testing machine-Vickers/Brinell	1		
6.	Beam deflection test apparatus	1		
7.	Extensometer	1		
8.	Compressometer	1		
9.	Dial gauges	1		
10.	Le Chateliers apparatus	2		
11.	Vicats apparatus	2		
12.	Mortar cube moulds	10		

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(R 2017) Semester – IV
CE8461 HYDRAULIC ENGINEERING LABORATORY
Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Rotometer	1		
2.	Venturimeter/Orifice meter	1		
3.	Bernoullis	1		
4.	Centrifugal Pump	1		
5.	Gear Pump	1		
6.	Submersible pump	1		
7.	Reciprocating Pump	1		
8.	Pelton Wheel turbine	1		
9.	Francis turbines / kaplon turbine	1		
10.	determination of Metacentric height of floating bodies	1		
11.	friction factor in pipes	1		
12.	minor losses	1		

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B.E. Civil Engineering

(R 2017) Semester – V

CE8512 WATER AND WASTE WATER ANALYSIS 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	2		
2.	Nephelometer	2		
3.	Conductivity meter	1		
4.	UV and Visible Spectrophotometer	1		
5.	Jar test apparatus	2		
6.	DO meter	2		
7.	BOD incubator	1		
8.	COD digester (with 6 heating mantle)	2		
9.	Imhoff cone	4		
10.	Sterilization chamber	1		
11.	Water bath	2		
12.	Hot air oven	1		
13.	Weighing machine(0.0001g)	1		
14.	China dish	6		
15.	Weighing machine(0.001g)	1		
16.	Autoclave	1		
17.	Refrigerator	1		
18.	Muffle furnace	1		
19.	Bacteriological incubator	1		
20.	Nessler's tube 100 mL	20		

21.	Burette 50mL with stand	15		
22.	Burette 25mL with stand	3		
23.	Pipette 10mL	15		
24.	Pipette 5mL	10		
25.	Pipette 2 mL	4		
26.	Conical flask 10 mL	2		
27.	Volumetric flask 250mL	5		
28.	Volumetric flask 1000mL	1		
29.	Volumetric flask 500mL	5		
30.	Volumetric flask 250mL	6		
31.	Volumetric flask 100mL	8		
32.	Volumetric flask 50mL	6		
33.	Compound microscope	1		
34.	Test tubes 20mL	200		
35.	Beaker 1000mL	3		
36.	Beaker 500mL	6		
37.	Beaker 100mL	20		
38.	Measuring jar 1000mL	2		
39.	Measuring jar 500mL	4		
40.	Measuring jar 100mL	10		
41.	Measuring jar 50mL	5		
42.	Measuring jar 10mL	5		

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(R 2017) Semester – V
CE8511 SOIL MECHANICS LABORATORY
Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Sieves	2		
2.	Hydrometer	2		
3.	Liquid and plastic limit apparatus	2		
4.	Shrinkage limit apparatus	3		
5.	Proctor compaction apparatus	2		
6.	UTM of minimum of 20KN capacity	1		
7.	Direct shear apparatus	1		
8.	Thermometer	2		
9.	Sand replacement method accessories and core cutter method accessories	2		
10.	Triaxial shear apparatus	1		
11.	Three gang consolidation test device	1		
12.	Relative Density apparatus	1		
13.	Van Shear apparatus	1		
14.	Weighing machine 20kg capacity	1		
15.	Weighing machine 1kg capacity	3		

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(R 2017) Semester – VI
CE8611 HIGHWAY ENGINEERING LABORATORY
Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Concrete cube moulds	6		
2.	Concrete cylinder moulds	3		
3.	Concrete Prism moulds	3		
4.	Sieves	1		
5.	Concrete Mixer	1		
6.	Slump cone	3		
7.	Flow table	1		
8.	Vibrator	1		
9.	Trovels and planers	1		
10.	UTM - 400 kN capacity	1		
11.	Vee Bee Consistometer	1		
12.	Aggregate impact testing machine	1		
13.	CBR Apparatus	1		
14.	Blains Apparatus	1		
15.	Los - Angeles abrasion testing machine	1		
16.	Marshall Stability Apparatus	1		