

**Faulty of Pharmacy
Jamia Hamdard, Delhi**

List of EQUIPMENT AND APPARATUS (Course-wise)

1 . List of equipments for D. Pharm course

Pharmaceutics

Equipments:

Sl. No.	Name	Minimum required Nos.	Available Nos.	Working
1	Continuous Hot Extraction Equipment	5	15	Yes
2	Conical Percolator	5	50	Yes
3	Tincture Press	1	1	Yes
4	Hand Grinding Mill	1	5	Yes
5	Disintegrator	1	2	Yes
6	Ball mill	1	2	Yes
7	Hand operated Tablet machine	1	5	Yes
8	Tablet Coating Pan unit with hot air blower laboratory size	1	2	Yes
9	Polishing pan laboratory size	1	2	Yes
10	Monsantoâ€™s hardness tester	1	5	Yes
11	Pfizer type hardness tester	1	5	Yes
12	Tablet disintegration test apparatus IP	1	5	Yes
13	Tablet dissolution test apparatus IP	1	5	Yes
14	Granulating sieve set	10	40	Yes
15	Tablet counter â€™“ small size	5	5	Yes
16	Friability tester	1	2	Yes
17	Collapsible tube â€™“ Filling and sealing equipment	1	2	Yes
18	Capsule filling machine	1	2	Yes

	Lab size			
19	Digital balance	1	4	Yes
20	Distillation unit for distilled water	2	7	Yes
21	Deionisation unit	1	2	Yes
22	Glass distillation unit for water for injection	1	4	Yes
23	Ampoule washing machine	1	1	Yes
24	Ampoule filling and sealing machine	1	1	Yes
25	Sintered glass filters for bacteria proof filtration (four different grades)	0	120	Yes
26	Millipore filter (3 grades)	0	6	Yes
27	Autoclave	1	3	Yes
28	Hot air sterilizer	1	2	Yes
29	Incubator	1	4	Yes
30	Aseptic cabinet	1	2	Yes
31	Ampoule clarity test equipment	1	2	Yes
32	Blender	1	3	Yes
33	Sieves set (Pharmacopoeial standard)	2	10	Yes
34	Lab Centrifuge	1	5	Yes
35	Ointment slab	0	70	Yes
36	Ointment spatula	0	70	Yes
37	Pestle and mortar porcelain	0	80	Yes
38	Pestle and mortar glass	0	40	Yes
39	Suppository moulds of three sizes	0	30	Yes
40	Refrigerator	1	5	Yes

Pharmaceutical Chemistry

Equipments:

Sl. No.	Name	Minimum required	Available Nos.	Working
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		Nos.		
1	Refractometer	1	3	Yes
2	Polarimeter	1	2	Yes
3	Photoelectric colorimeter	1	3	Yes
4	Ph meter	1	3	Yes
5	Atomic model set	2	3	Yes
6	Electronic balance	1	15	Yes
7	Periodic table chart	0	2	Yes

Physiology & Pharmacology Laboratory

Equipments:

Sl. No.	Name	Minimum required Nos.	Available Nos.	Working
1	Haemoglobinometer	20	35	Yes
2	Haemocytometer	10	30	Yes
3	Student's organ bath	1	40	Yes
4	Sherington's rotating drum	1	46	Yes
5	Frog board	0	30	Yes
6	Tray (dissecting)	0	35	Yes
7	Frontal writing lever	0	40	Yes
8	Aeration tube	0	60	Yes
9	Telethermometer	1	1	Yes
10	Pole climbing apparatus	1	1	Yes
11	Histamine chamber	1	1	Yes
12	Simple lever	0	15	Yes
13	Sterling heart lever	0	20	Yes
14	Aerator	0	30	Yes
15	Histological Slides	0	25	Yes
16	Sphygmomanometer (B.P. apparatus)	5	5	Yes
17	Stethoscope	5	5	Yes
18	First aid equipment	0	5	Yes
19	Contraceptive device	0	5	Yes
20	Dissecting (surgical) instruments	0	20	Yes
21	Balance for weighing	1	2	Yes

	small Animals			
22	Kymograph paper	0	100	Yes
23	Actophotometer	1	1	Yes
24	Analgesiometer	1	2	Yes
25	Thermometer	0	35	Yes
26	Plastic animal cage	0	86	Yes
27	Double unit organ bath with thermostat	1	5	Yes
28	Refrigerator	1	5	Yes
29	Digital balance	1	3	Yes
30	Charts	0	50	Yes
31	Human skeleton	1	2	Yes
32	Anatomical specimen (Heart, brain, eye,,ear,,reproductive system etc.,)	0	1	Yes
33	Electro-convulsiometer	1	1	Yes
34	Stop watch	0	10	Yes
35	Clamp, boss heads, screw clips	0	35	Yes
36	Symeâ€™s Cannula	0	20	Yes

Pharmacognosy Laboratory

Equipments:

Sl. No.	Name	Minimum required Nos.	Available Nos.	Working
1	Projection Microscope	1	1	Yes
2	Charts (different types)	0	100	Yes
3	Models (different types)	0	50	Yes
4	Permanent Slides	0	100	Yes
5	Slides and Cover Slips	0	100	Yes

Pharmacy Practice Laboratory

Equipments:

Sl. No.	Name	Minimum required Nos.	Available Nos.	Working
1	Colorimeter	2	3	Yes

2	Microscope	0	24	Yes
3	Permanent slides (skin, kidney, pancreas, smooth muscle, liver etc.,)	0	30	Yes
4	Watch glass	0	25	Yes
5	Centrifuge	1	1	Yes
6	Biochemical reagents for analysis of normal and pathological constituents in urine and blood facilities	0	20	Yes
7	Filtration equipment	2	2	Yes
8	Filling Machine	1	2	Yes
9	Sealing Machine	1	2	Yes
10	Autoclave sterilizer	1	1	Yes
11	Membrane filter	0	1	Yes
12	Sintered glass funnel with complete filtering assemble	0	15	Yes
13	Small disposable membrane filter for IV admixture filtration	0	20	Yes
14	Laminar air flow bench	1	1	Yes
15	Vacuum pump	1	2	Yes
16	Oven	1	5	Yes
17	Surgical dressing	0	20	Yes
18	Incubator	1	5	Yes
19	PH meter	1	3	Yes
20	Disintegration test apparatus	1	3	Yes
21	Hardness tester	1	5	Yes
22	Centrifuge	1	5	Yes
23	Magnetic stirrer	1	3	Yes
24	Thermostatic bath	1	5	Yes

2 . List of equipments for B Pharm. & M. Pharm courses

Pharmacology

Equipments:

Sl. No.	Name	Minimum required Nos.	Available Nos.	Working
1	Microscopes	15	20	Yes
2	Haemocytometer with Micropipettes	20	20	Yes
3	Sahli's haemocytometer	20	20	Yes
4	Hutchinson's spirometer	1	1	Yes
5	Sphygmomanometer	5	10	Yes
6	Stethoscope	5	10	Yes
7	Permanent Slides for various tissues	0	20	Yes
8	Models for various organs	0	15	Yes
9	Specimen for various organs and systems	0	15	Yes
10	Skeleton and bones	0	30	Yes
11	Different Contraceptive Devices and Models	0	5	Yes
12	Muscle electrodes	1	1	Yes
13	Lucas moist chamber	1	1	Yes
14	Myographic lever	1	1	Yes
15	Stimulator	1	1	Yes
16	Centrifuge	1	1	Yes
17	Electronic Balance	1	1	Yes
18	Physical /Chemical Balance	1	1	Yes
19	Sherrington's Kymograph Machine / Polyrite	10	20	Yes
20	Sherrington Drum	10	20	Yes
21	Perspex bath assembly (single unit)	10	20	Yes
22	Aerators	10	20	Yes
23	Computer with LCD	1	1	Yes
24	Software packages for experiment	1	1	Yes
25	Standard graphs of various drugs	0	1	Yes

26	Actophotometer	1	1	Yes
27	Rotarod	1	1	Yes
28	Pole climbing apparatus	1	1	Yes
29	Analgesiometer (Eddy's hot plate and radiant heat methods)	1	1	Yes
30	Convulsiometer	1	1	Yes
31	Plethysmograph	1	1	Yes
32	Digital pH meter	1	1	Yes

Apparatus:

Sl. No.	Name	Minimum required Nos.	Available Nos.	Working
1	Folin-Wu tubes	60	120	Yes
2	Dissection Tray and Boards	10	20	Yes
3	Haemostatic artery forceps	10	20	Yes
4	Hypodermic syringes and needles of size 15,24,26G	10	20	Yes
5	Levers, cannulae	20	40	Yes

Pharmacognosy

Equipments:

Sl. No.	Name	Minimum required Nos.	Available Nos.	Working
1	Microscope with stage micrometer	15	76	Yes
2	Digital Balance	2	1	Yes
3	Autoclave	2	4	Yes
4	Hot air oven	2	8	Yes
5	B.O.D. incubator	1	2	Yes
6	Refrigerator	1	6	Yes
7	Laminar air flow	1	3	Yes

8	Colony counter	2	2	Yes
9	Zone reader	1	1	Yes
10	Digital pH meter	1	2	Yes
11	Microscope with stage and oil immersion objective	20	20	Yes
12	Sterility testing unit	1	1	Yes
13	Camera Lucida	15	60	Yes
14	Eye piece micrometer	15	20	Yes
15	Stage micrometer	20	25	Yes
16	Incinerator	1	1	Yes
17	Moisture balance	1	1	Yes
18	Heating mantle	15	45	Yes
19	Flourimeter	1	1	Yes
20	Vacuum pump	2	2	Yes
21	Micropipettes (Single and multi channeled)	2	5	Yes
22	Micro Centrifuge	1	2	Yes
23	Projection Microscope	1	1	Yes

Appratus:

Sl. No.	Name	Minimum required Nos.	Available Nos.	Working
1	Reflux flask with condenser	20	85	Yes
2	Water bath	20	40	Yes
3	Clavengers apparatus	10	20	Yes
4	Soxhlet apparatus	10	18	Yes
5	TLC chamber and sprayer	10	20	Yes
6	Distillation unit	1	2	Yes

Pharmaceutical Chemistry

Equipments:

Sl. No.	Name	Minimum required Nos.	Available Nos.	Working
1	Hot plates	5	5	Yes

2	Oven	3	4	Yes
3	Refrigerator	1	8	Yes
4	Analytical Balances for demonstration	5	5	Yes
5	Digital balance 10mg sensitivity	10	20	Yes
6	Suction pumps	6	6	Yes
7	Muffle Furnace	1	1	Yes
8	Mechanical Stirrers	10	10	Yes
9	Magnetic Stirrers with Thermostat	10	10	Yes
10	Vacuum Pump	1	2	Yes
11	Digital pH meter	1	3	Yes
12	Microwave Oven	1	1	Yes

Appratus:

Sl. No.	Name	Minimum required Nos.	Available Nos.	Working
1	Distillation Unit	2	3	Yes
2	Reflux flask and condenser single necked	20	20	Yes
3	Reflux flask and condenser double / triple necked	20	20	Yes
4	Burettes	40	50	Yes
5	Arsenic Limit Test Apparatus	20	20	Yes
6	Nessler's Cylinders	40	40	Yes

Pharmaceutics

Equipments:

Sl. No.	Name	Minimum required Nos.	Available Nos.	Working
1	Homogenizer	5	6	Yes
2	Digital balance (10 mg sensitivity)	5	15	Yes
3	Microscopes	5	30	Yes

4	Stage and eye piece micrometers	5	10	Yes
5	Brookfieldâ€™s viscometer	1	2	Yes
6	Ball mill	1	3	Yes
7	Sieve shaker with sieve set	1	2	Yes
8	Double cone blender	1	1	Yes
9	Propeller type mechanical agitator	5	6	Yes
10	Autoclave	1	2	Yes
11	Steam distillation still	1	5	Yes
12	Vacuum Pump	1	3	Yes
13	Standard sieves, sieve no. 8, 10, 12,22,24, 44, 66, 80	0	3	Yes
14	Tablet punching machine	1	5	Yes
15	Capsule filling machine	1	2	Yes
16	Ampoule washing machine	1	1	Yes
17	Ampoule filling and sealing machine	1	1	Yes
18	Tablet disintegration test apparatus IP	1	1	Yes
19	Tablet dissolution test apparatus IP	1	4	Yes
20	Monsantoâ€™s hardness tester	1	5	Yes
21	Pfizer type hardness tester	1	2	Yes
22	Friability test apparatus	1	1	Yes
23	Clarity test apparatus	1	2	Yes
24	Ointment filling machine	1	1	Yes
25	Collapsible Tube Crimping Machine	1	1	Yes
26	Tablet coating pan	1	2	Yes
27	Magnetic stirrer, 500ml and 1 liter capacity, with variable speed control.	10	5	Yes

28	Digital pH meter	2	2	Yes
29	All purpose equipment with all accessories	1	1	Yes
30	Aseptic Cabinet	1	2	Yes
31	BOD Incubator	2	2	Yes
32	Bottle washing Machine	1	1	Yes
33	Bottle Sealing Machine	1	1	Yes
34	Bulk Density Apparatus	2	2	Yes
35	Conical Percolator (glass/ copper/ stainless steel)	10	10	Yes
36	Capsule Counter	2	2	Yes
37	Energy meter	2	2	Yes
38	Hot Plate	2	10	Yes
39	Humidity Control Oven	1	2	Yes
40	Liquid Filling Machine	1	1	Yes
41	Mechanical stirrer with speed regulator	2	4	Yes
42	Precision Melting point Apparatus	1	1	Yes
43	Tray Drier	1	2	Yes
44	Distillation Unit	1	4	Yes

Appratus:

Sl. No.	Name	Minimum required Nos.	Available Nos.	Working
1	Ostwaldâ€™s viscometer	15	20	Yes
2	Stalagmometer	15	15	Yes
3	Desiccator	5	5	Yes
4	Suppository moulds	20	20	Yes
5	Buchner Funnels Small, medium, large	0	5	Yes
6	Filtration assembly	1	1	Yes
7	Permeability Cups	5	5	Yes
8	Andreasonâ€™s Pipette	3	3	Yes
9	Lipstick moulds	10	10	Yes

Pharmaceutical Biotechnology

Equipments:

Sl. No.	Name	Minimum required Nos.	Available Nos.	Working
1	Orbital shaker incubator	1	4	Yes
2	Lyophilizer (Desirable)	1	1	Yes
3	Gel Electrophoresis (Vertical and Horizontal)	1	1	Yes
4	Phase contrast/Trinocular Microscope	1	1	Yes
5	Refrigerated Centrifuge	1	1	Yes
6	Fermenters of different capacity (Desirable)	1	1	Yes
7	Tissue culture station	1	1	Yes
8	Laminar airflow unit	1	3	Yes
9	Diagnostic kits to identify infectious agents	1	2	Yes
10	Rheometer	1	1	Yes
11	Viscometer	1	1	Yes
12	Micropipettes (single and multi channeled)	0	1	Yes
13	Sonicator	1	2	Yes
14	Respinometer	1	1	Yes
15	BOD Incubator	1	1	Yes
16	Paper Electrophoresis Unit	1	1	Yes
17	Micro Centrifuge	1	1	Yes
18	Incubator water bath	1	1	Yes
19	Autoclave	1	3	Yes
20	Refrigerator	1	6	Yes
21	Filtration Assembly	1	1	Yes
22	Digital pH meter	1	1	Yes

Central Instrumentation Room

Equipments:

Sl. No.	Name	Minimum required Nos.	Available Nos.	Working
1	Colorimeter	1	1	Yes
2	Digital pH meter	1	1	Yes
3	UV- Visible Spectrophotometer	1	2	Yes
4	Flourimeter	1	1	Yes
5	Digital Balance (1mg sensitivity)	1	1	Yes
6	Nephelo Turbidity meter	1	1	Yes
7	Flame Photometer	1	1	Yes
8	Potentiometer	1	1	Yes
9	Conductivity meter	1	1	Yes
10	Fourier Transform Infra Red Spectrometer (Desirable)	1	1	Yes
11	HPLC	1	2	Yes
12	HPTLC (Desirable)	1	2	Yes
13	Atomic Absorption and Emission spectrophotometer (Desirable)	1	0	No
14	Biochemistry Analyzer (Desirable)	1	1	Yes
15	Carbon, Hydrogen, Nitrogen Analyzer (Desirable)	1	0	No
16	Deep Freezer (Desirable)	1	1	Yes
17	Ion- Exchanger	1	1	Yes
18	Lyophilizer (Desirable)	1	1	Yes
19	NMR	-	1	yes
20	UPLC-MS	-	2	Yes
21	Flash chromatographic system	-	2	Yes