Government permission

PONDICHERRY UNIVERSITY
NORMS FOR AFFILIATION
2006

These norms may be treated as the guidelines for the minimum requirements to be possessed by the College/Institutions for seeking affiliation with Pondicherry University.

COMMON BASIC CRITERIA FOR OBTAINING AFFILIATION

Management

Government or a Society registered under the Societies 'Registration Act 1860 (21 of 1860) or a Trust with Trustees being appointed and vested with legal powers and duties and create a non-transferable Endowment Fund in the name of the Society or Trust as the case may be.

Should have obtained NOC from the respective State Government

Statutory body approval

(i) Approval of respective statutory bodies like AICTE, MCI, NCTE should have been obtained.
(ii) Wherever special status like 'Minorities' etc is claimed approval of the respective statutory body like "Minorities Commission" should have been obtained

Endowment Creation

The University may fix the quantum of endowment keeping in view the adequacy of the financial position of the college after taking into account the Government grant. The endowment should be created accordingly.

Own Land

The Society / Trust should own adequate land exclusively for the college. Documentary proof for ownership of lands exclusively earmarked for the college and Legal opinion from the Government pleader on the ownership of land and extent of coverage should be produced .

Financial Stability

Documents showing the financial viability of the college (details of budgeted revenue and expenses statement) should be produced

B. Pharm.

Requirements

Land

Essential:
Should have a minimum of 2.5 acres of land

Endowment Creation

Essential:
30,00,000/- (50% in Cash & 50% in Property)

Class Room/Lecture room

Essential:
Minimum Built up area in (Sq.m.) :
a) Instructional Area (Carpet area) - 500
b) Administrative Area (Carpet area) – 100
c) Ciculation & other Area – 100

Details of Instructional area (Carpet area) :

Class rooms – 1 No. – 70 Sq.m.
Tutorial room – 1 No. – 40 Sq.m
Library – 1 No. – 100 Sq.m.
Laboratories – 5 Nos. – 75 Sq.m.

Norms for space & Building :-
1) Requirement of land (in acres) – 2.5
2) Number of rooms for Theory classes – 4 ; Carpet area required (minimum) – 75 sq.m.
3) Number of rooms for Tutorial work – 3 ; Carpet are required (minimum) – 25 sq.m.
4) Laboratories :-
Minimum Area (Sq.m.) required for 1st Year :-
a) Pharmaceutical Chemistry laboratory-1 = 75
b) Balance rooms-1No. (1*20 sq.m.) =20
c) Pharmaceutics Laboratory-1 = 75
d) Pharmaceutical analysis & Biochemistry lab = 75
e) Pharmacognosy Lab = 75
f) Human anatomy and physiology lab = 75
g) Computer room = 20
h) Stores – General = 100
i) Library = 200

For IInd Year :-
a) Pharmaceutical Chemistry Laboratory-II = 75
b) Balance rooms-1 No. (1*20 sq.m.) = 20
c) Physical Pharmacy Lab = 75

d) Pharmacology lab = 75
e) Museum = 300

Desirable:

a) Microbiology Laboratory (Desirable) = 75
b) A septic room = 25

c) Industrial Pharmacy = 125
d) Pharma-Biology lab = 75
e) Stores-Inflammable = 20
f) Examination Hall & Auditorium = 150

For IIIrd Year :-

a) Instruments room = 75
b) Animal House = 75

For IVth Year :-

Pharmaceutics Laboratory-II = 75

Toilet blocks shoud be as per national building code.

Laboratories

Essential:

Each laboratory should have 1) Gas, water and electric supply; 2) Shelves for keeping reagents; 3) Working table; 4) Sinks; 5) Storage cabinets; 6) Exhaust fan; 7) Fume chamber wherever necessary; 8) Black board with light; 9) Furniture (suitable arrangement for sitting of the students and teachers)

Each of these laboratories will be equipped with the following equipment/ instrument.

Pharmaceutical Chemistry I & II

Oven (1 each), centrifuges – 2 each, safety goggles and helmet, a shower and eye rinse shower, Mechanical and Magnetic stirrers (adequate nos.), Melting point apparatus (adequate nos.). Electrical water bath with multiple holes Heating mantles and Hot Plates are required, Ordinary glass apparatus. Quick fit type apparatus, Kipp's apparatus (only in Pharm. Chemistry-1), Dessicators. Hardware including clamps, tripod and retort stands, retort rings, burners, sand bath, deminersaler, Atomic models of different types (e.g. Ball & Stick, Dreading etc.). water bath, oil baths, etc. chemical balances (10), Incubator (1),Electrical Bath thermostatically controlled (2), Micropipettes (4).

Desirable : Reaction vessels (2), Pressure vessels (2), Oil bath 5 litre, Distillation Unit (1), Fractionating columns (2), Autoclave (1), Filter Press (1), Heating mantles 5 litre (1), 10 litre (1), Industrial stirrers 2 HP (2) Computer software for molecular graphics and stereo chemistry, water bath, oil baths, etc. Super speed centrifuge (1), Indicator balance (1 each). The balance room will have an electronic single pan balance (10), Incubator-Shaker (1).

Pharmaceutics I & II, Pharm. Microbiology and Aseptic room :

Oven, (1 each), incubator (1), dispensing balance (30), chemical balance (10), top loading balance, tincture press (2), Granulating sieves (3) each of different mesh size 8, 12, 16, 20, 40, 85 and 120, Nylon mesh of 60, 85, 120, 200 & 200 mesh, (2 each), standard sieves (10,16,22,44,85,120 & 200 mesh, (2 each), Rotap Sifter 1, Still for water for injection (1 unit), Sintered glass filters No.3,4 & 5 (10) stability ovens (3), Autoclaves [small (2) and large (1)], Mechanical stirrers (5), molds for casting suppositories (20) compound microscopes with moving stage and oil immersion lenses (8), clarity test apparatus (1), Millipore filter holders (3), Millipore membranes sufficient (0.45 microns), ampoule filling and ampoule sealing device (1), Colony Counter (1), Antibiotic zone reader (1), Refrigeration (2), Sterility testing equipments (2), Adequate glass apparatus, metal and porcelain ware, UV lights hatch, stage and eye micrometers (5), Laminar Flow cabinet.

Desirable : Quality control test instruments and equipments, Glass percolators (25) including tablet hardness testers (one each type), Disintegration test apparatus (2), Dissolution rate test apparatus (2), pH meter (1), Friability test requirement (1), Vernier Calipers (3), Micrometer screw gauge (1), IR moisture balance (1), Environment chamber (1), Nepheloturbidity meter, Air conditioner, sterile gown storage cupboard,

Physical Pharmacy and Biopharmaceutics Laboratory :

One each of Oven, Hair Dryer, Colorimeter (preferably spectronic 20), refractometer, polarimeter, conductometer, pH meter, molecular wt. determination apparatus (by Depression MP and elevation boiling point), Viscometer bath, thermostatic water bath, Chemical balance, physical bulk density determining apparatus, Andresen's pipette, ostwalds viscometers stalagmometer, Dissolution rate test apparatus, Adequate glass water, porcelain ware and metal ware, stopwatches, Tube centrifuge (electrically operated).

Desirable : Particle size analyzer (Coulter Counter or other suitable model) preferably with data processor, zeta meter, DSC/TG analysis apparatus, surface area analyzer, ultrasonicator, Freeze Dryer, rotational viscometer, Lovibond colour comparator.

Industrial Pharmacy Laboratory :

The Industrial Pharmacy Laboratory should be designed in a manner to meet GMP requirements as stipulated by the law. The design should pay special attention to the environment controls including the quality of air, the nature and the intensity of light, cross contamination control rodents and insect controls, etc. The area should also be provided with essential services such as DM water, vacuum, exhausts, compressed air, steam, etc. The design should also provide for safety including emergency door, fire protection, first aid box and tool box. Reasonable amount of cleanliness must be ensured during the manufacturing of formulation. This laboratory must have following equipments (1 No. each).

Root crusher, Micropulversier, Ball Mill, Rotap sieve Shaker, Cube Mixe Sigma blade mixer with jacket, Planetary mixer, hard gelatin Capsule filling machine (Manual), with plate 00, 0 & 1, Stirrer & tank, Emulsifier (silverso type), Compartment dryer, Ointment/cream filling machine, Tube sealing machine, Triple roller mill, Liquid filling machine, ROPP cap sealing machine Single stroke motor operated tablet machine, Rotary Tablet machine, Fluidized Bed Dryer (desirable), Sparkler / S.S. Filter Press, Coating and polishing par Dry & Wet bulb thermometer/Hygrometer.

Desirable : Tablet counting device, Blister pack/strip pack machine, Aerosol filling system, leak testing equipment for strips, Package testing equipment, Powder filling machines, Pouch sealing machines.

Pharmaceutical Analysis Laboratory :

Adequate number of the following equipments/ instruments, Oven, IR Moisture balance one pan, MP apparatus, TLC kit & UV detection cabinet, pH meter, Colorimeter, flame photometer, photofluorimeter, UV-visible spectrophotometer with recorder/printer, microburettes, micropipettes, Burettes, pipettes and Volumetric ware with high precision, Silica dishes, Crucibles and Gooch Crucibles, iodine flasks, separating funnel, Karl Fisher titrimeter, chemical balances, Polarimeter, Refractometer, Water bath electrically heated, Vortex mixer, hot plate, Microscope, Stage and eye piece micrometer, Microkjeldhal digestion and distillation assembly, Refrigerator, Centrifuge, Volatile oil determination apparatus.
Desirable : Surface tension determination apparatus.

Instrument Room :

The following instruments may be made available.

UV visible double beam printer/plotter spectro-photometer, Metler balance preferably spectronic 20), Conductometer, Dehumidifier, Voltage stabilizer server-type), paper and Gel Electrophoresis apparatus.

Pharmacognosy Laboratory :

Compound microscope (25), Photomicrographic equipment (1), Polarising microscope (1), Wileys mill (1), Projection microscope (1), Stage & eye piece micrometers (12 & 24) respectively), Binocular microscope (1), Spence type microtome with accessories (1), Eye piece with pointer (4), Cameral Lucida (24), Drawing Boards if necessary (22), TLC kit (2), UV cabinet (1), Oven (1), Conical percolator (1), Soxhlet extractor of different capacities (as required), Heating mantles, Hot plates, Mechanical Flask shaker, balance triple beam (1), Volatile oil distillation apparatus (3), Refrigerator (1), BOD incubator, Models, Charts, Herbarium & drug museum, Permanent slides.
Desirable : H.P.L.C. with different detectors, H.P.T.L.C., with Scanner, and Linomate, Nanomat, Computer Software and photodocumentation, Gas liquid Chromatography with FID, TCD, Electron Capture and nitrogen detector.

Pharmacology Laboratory :
Heamocytometer (22), Hemometer (22), Microscopes (12), Stethoscope (1), Sphygmomanometer, Surgical instruments (adequate), Human skeleton (articulated), bone set (1), Anatomical charts, Models and permanent slides as required for teaching the syllabus, transparencies, 35 mm. slides of pharmacology and pathophysiology, mounted visceral organs, student kymographs (22) alongwith accessories, Organ bath Chemical balance (preferably single pan electronic). Lab centrifuge with tachometer, Animal cages for rats, mice, guinea pigs, etc. smoking burner, Varnishing tray paper smoker, Circular drying stand, Exhaust fan, Glass ware, metal ware.

Desirable : Mammalian Heart, Perfusion Assembly, operation table, super speed kymograph, polygraph, Spironmeter, Respiratory Pump, etc. Tissue Homogeniser, Roller Drum appraus, Analgesiometer, Electronic Stimulator and Rotarod.

Laboratory Staff :-

i. Laboratory Assistant – 6
ii. Laboratory Attendant – 8

Library

Essential:

(a) Books : 1500 numbers with adequate coverage of all disciplines of pharmacy
(b) Annual addition of books : 100 to 150 books
(c) Periodicals : 15 of which 3 should be international.

No. of Titles – 150
No. of volumes – 1500
No. of Journals – 15
Full time Librarian – 1
Photo copier – 1

Desirable:

Digital Library – One Computer + Library Networking + Multimedia Facilities

Faculty (Student Teacher Ratio)

Essential:

Student – Teacher ratio :
Theory lecture class – 60:1
Lab practical – 20:1

Minimum Teaching staff Requirement :

I year B.Pharm :-
Assistant Professor / Reader – 1
Lecturer – 2

II year B.Pharm :-
Professor (Pharmaceutics) – 1
Reader (Pharma analysis) – 1
Lecturer (Pharma Chemistry Pharmacology) – 2

III Year B. Pharm. :-
Professor (Pharma Chemistry-1 & Pharmacology-1) – 2
Reader (Pharmaceutics-1 & Pharmacognosy-1) – 2
Lecturer (Pharmaceutics-1 & Pharma Chemistry-1) – 2

IV Year B. Pharm. :-
Professor (Pharmacognosy) – 1
Reader (Pharmacology) – 1
Lecturer (Pharmaceutics-1 & Pharma analysis-1) – 2

(1) Principal – 1
(2) Professor – 4
(3) Reader – 6
(4) Lecturer – 10

Part-time teaching staff for Remedical Mathematics, Advance Mathematics, Basic Electronics and Computer Applications and Pharmaceutical and Industrial management.

Technical Staff: 1 Lab assistant (D. Pharm.) for each lab + 1 maintenance staff for institution.

Teaching Staff Qualification :
i. Lecturer : First class Master's degree in appropriate branch of specialization in pharmacy (No minimum requirement)
ii. Assistant Professor : Ph.D. degree in the appropriate branch of specialization in pharmacy with 2 years experience in teaching/Industry/Research at the level of Lecturer or equivalent (Or)
First class degree at Master's level in the appropriate branch of specialization in Pharmacy with 5 years experience in Teaching/Industry/Research at the level of Lecturer. Such candidates will be required to obtain Ph.D. degree within a period of 7 years from the date of appointment as Assistant Professor. Candidates from Industry/Profession with First Class Master's degree in appropriate branch of specialization in pharmacy and with 5 years experience would also be eligible.
iii. Professor : Ph.D. degree (with first class either at bachelor's or Master's level) in appropriate branch of specialization in Pharmacy with 10 years experience in Teaching/Industry/Research our of which 5 years must be at the level of Assistant Professor or equivalent.
Candidates from Industry/profession with First class Master's degree in appropriate branch of specialization in Pharmacy and with 10 years experience of which at least 5 years experience at Sr. level comparable to that of an Assistant Professor would also be eligible.
iv. Director/Principal/ Head of Institute : Professor in relevant discipline with total experience of 10 (ten) years in the field of Teaching/Industry/Research.
Desirable:
III Year B. Pharm. :-

Lecturer (Pharmacognosy-1 & Pharmacology-1) – 2

IV Year B. Pharm. :-

Reader (Pharmaceutics-1 & Pharma Chemistry-1) – 2
Lecturer (Pharmaceutics-1 & Pharma Chemistry-1) – 2

Computer Centre/Facility

Essential:

Adequate Hardware and Soft ware facilities with Internet connections. Minimum 50 computers should be available in the first year itself.

Student Hostel

Desirable:

If the opening of a new college is to cover the students in the surrounding area, adequate hostel facilities should be provided, hostel accommodation must also be according to norms prescribed by the UGC.

Boys : 25% of Students

Girls : 50% of students

Essential Service

Adequate facilities for essential service (Water, electricity and severage facilities be provided in all the buildings)

Desirable:

Permanent Electrical connection with 15 KVA.

Electrical Generator – 5 KVA

Potable water supply system – 120 Lt/day

Other amenities

Essential:

(a) Gas plant : (Where LPG cylinders are not available)

(1) Gas plant unit based on petrol/Kerosene oil – 2

(2) Gas supplying lines to various laboratories

(3) Bunsen Gas burners – 120

(b) Water pump room : Water pump room will give a water pump with 5 – 7.5 10HP Motor depending on the height of the building and the size of over head Tanks.

(c) Drinking water area : There will be a separate area where potable water (suitable for drinking) will be provided.

(d) Sanitary Block :

There will be adequate number of sanitary blocks separately for ladies and gents. Separate blocks are also desirable for staff and for Principal.

(e) Ramps be provided in the building for the Physically handicapped

(f) Separate common rooms for girls and boys be provided in co-educational colleges – 100 sqm.

(g) Adequate accommodation be provided for Principal's Office, Bursar's Office and for administrative staff.

(h) There should be a staff room of a proper size

(i) Certificate for fire safety

(j) Canteen – 100 sqm.

(k) Parking space : This will be provided as open or covered area at the rate of 15 percent of the plinth area of the institute building

(l) There shall be games facilities with a playground. Alternatively, the playground available with the attached school/college may be utilised and where there is scarcity of space as in metropolitan towns/hilly regions, facilities for yoga, indoor games may be provided.

(m) Adequate arrangements for meeting Emergency medical requirements should be available within the campus.

Desirable:

a) Auditorium

b) Seminar Hall

c) All Weather approach Road – Minimum 4m wide

d) Staff Quarters for Teachers : Flat type accommodation for atleast 25% of the teachers along with certain common facilities. If the college is to be established in a remote area, higher percentage of teachers may be provided with accommodation in order to facilitate their participation in the corporate life of the college