**Programme Inspection Proforma**



# **For**

# **M.Phil Pharmacology**

# **UNIVERSITY OF HEALTH SCIENCES, LAHORE**

**LEGAL REQUIREMENTS**

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| **Sr. #** | **PARAMETER** | **REQUIRED** | **ACTUAL / OBSERVED** |
| 1 | Ownership | Institution can vest in  i. a body corporate registered under the relevant laws of companies ordinance / societies / trust.  ii. Federal/ Provincial or Local Government   1. A Pakistani University seeking affiliation for Medical/ Dental/Allied Health sciences courses   iv. An autonomous body promoted by Federal/provincial/local government by or under a statute for the purpose of nursing education;  v. A public or private charitable trust registered under the related act. |  |
| 2 | Teaching Hospital | Independent or Hospital based Radiology having workload of minimum 1000 laboratory tests per day as a total including different departments, chemistry, hematology, immunology, microbiology, histopathology and molecular biology. |  |
| 3 | Area of Premises | Minimum 1 acre |  |
| 5 | Ownership / Possession of Land | Ownership / Lease of 33 years |  |

**FINANCIAL STATUS AND SUSTAINABILITY**

|  |  |  |  |
| --- | --- | --- | --- |
| **S #** | **PARAMETER** | **REQUIRED** | **ACTUAL / OBSERVED** |
| 1 | Working Capital | Min. Rupees 05 Million (For Private Institution) |  |

**COMMON FACILITIES**

**“INFRASTRUCTURE”**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **PARAMETER** | **CAPACITY** | **ACTUAL / OBSERVED** | **AREA PER PERSON** | **MIN. AREA** | **ACTUAL / OBSERVED** |
| Auditorium | (1) 300 capacity |  | 10 sqft/person | 1000 sqft |  |
| Lecturer Hall | (1) 100 capacity |  | 10 sqft/person | 1000 sqft |  |
| Library | (1) 300 capacity |  | 10 sqft/person | 2000 sqft |  |
| Cafeteria | (1) 100 capacity |  | 20 sqft/person | 2000 sqft |  |
| Examination Hall | (1) 300 capacity |  | 10 sqft/person | 1000 sqft |  |
| Internet / Computer Labs | (1) 50 Capacity |  | 10 sqft/person | 500 sqft |  |

**BASIC REQUIREMENTS FOR M.Phil PHARMACOLOGY PROGRAMME**

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| --- | --- | --- | --- | --- |
| **S #** | **PARAMETER** | **REQUIRED** | **SPECIFICATION/CAPACITY** | **ACTUAL / OBSERVED** |
| 1 | **Offices**  a) Teaching Staff  b) Administrative Staff | a) 5 Minimum  b) 2 Minimum |  |  |
| 2 | Seminar/meeting room | 1 | 25 Capacity |  |
| 3 | Refreshment/tea room | 1 | 20 Capacity |  |
| 4 | Library for PG Students | 1 | a) 20 Capacity  b) Equipped with at least 3 computers with internet access  c) For two PG students at least one recommended Physiology book  d) Availability of indexed journals |  |
| 5 | Basic Pharmacology Laboratory | 2 | Optimum space for equipment and researchers with an area not less than 1000 sqft |  |
| 7 | Sample Collection/Patient Access |  | A tertiary hospital with minimum of daily 200 outdoor patients |  |
| 8 | Animal Research Facility/Laboratory | 1 | a) Animal House Rooms: 2 min with temperature and humidity monitor  b) Office for Veterinary officer  c) Designated space for house attendant  d) Changing area  e) Procedure room with proper OT light  f) 01 Colony breeding room  g) Cage washing area  h) Feed preparation/storage room  i) Corridor to accommodate extra cage racks |  |

**ADMINISTRATIVE STAFF – ESSENTIAL**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.#** | **Categories of staff** | **Req No.** | **Qualification and responsibility** | **Actual / Observed** |
| 1 | Program director | 1 | * Faculty member * (Professor, Associate Professor, Assistant Professor) |  |
| 2. | Librarian | 1 | * Graduate in library Science and Computer literate. * M.Sc. |  |
| 3. | Administrative officer /Computer technician/operator/typist | 1 | For Admin officer: MBA or BBA (04 years program)  For computer technician/operator: Diploma in computer science with 2 year experience.  For typist: minimum 40 words per minute typing speed |  |
| 4. | Bio Statistician | 1 | - M. Phil Biostatistician |  |
| 6. | Lab Attendant | 2 | Diploma in MLT |  |
| 7. | Peon | 2 | - Matric |  |
| 8. | Security guards | 1 | - Matric |  |
| 9. | Cleaners | 1 | - |  |

**TEACHING STAFF – FACULTY**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Designation** | **Minimum required Qualifications** | **Available** | **Deficiency** | **No. of MPhil produced** | **Publications in last three years** | **Names with Qualifications** |
| Professor of Pharmacology | MBBS or equivalent with PhD (Pharmacology) from an HEC recognized University / Institution |  |  |  |  |  |
| Associate Professor of Pharmacology | MBBS or equivalent with PhD (Pharmacology) from an HEC recognized University / Institution. |  |  |  |  |  |
| Assistant Professor of Pharmacology | MBBS or equivalent with PhD from HEC recognized University / Institution (No experience required)  OR  MBBS or equivalent with MPhil (Pharmacology) |  |  |  |  |  |
| Senior Demonstrator Pharmacology | MBBS or equivalent and having attended and passed the theory examination for MPhil (Pharmacology), pending defense of thesis. |  |  |  |  |  |
| Laboratory Manager | MSc (MLT) or Graduate (4 years program) with 2 years’ experience |  |  |  |  |  |
| Computer Education | Bachelor of Computer Sciences (04 years program) |  |  |  |  |  |
| Biostatistics & Research Methodology | M. Phil (Biostatistics) |  |  |  |  |  |

\*According to HEC there should be at least 2 relevant full time Ph.D. Faculty members in a department to launch the M.Phil programme.

**PART III**

**EQUIPMENT**

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| **Pharmacology (Equipment)** | | | | |
|  | **Section** | **Min Required** | **Deficiency** | **Remarks Working/Not working** |
|  | | | | |
|  | Spectrophotometer (visible and UV Range) | 1 |  |  |
|  | Water Bath with stirrer, temperature control and display | 1 |  |  |
|  | Incubator | 1 |  |  |
|  | Analytical balance | 1 |  |  |
|  | pH Meter | 1 |  |  |
|  | Hot plate with magnetic stirrer | 1 |  |  |
|  | ELISA washer and reader automated with UPS | 1 each |  |  |
|  | Refrigerator | 1 |  |  |
|  | Freezer (- 80°C) | 1 |  |  |
|  | Micro pipette (0.5-10 μl), (2-20 μl), (10-100 μl), 100-1000 μl) | 1 each |  |  |
|  | Multichannel micropipette | (1) |  |  |
|  | Autoclave | (1) |  |  |
|  | Tabletop Micro-centrifuge with speed upto 14000 rpm | 1 |  |  |
|  | Centrifuge machine for 50 ml tubes with speed upto 4000 rpm | 1 |  |  |
|  | Thermal cycler with UPS | 1 |  |  |
|  | Agarose Gel electrophoresis apparatus with power supply | 1 |  |  |
|  | Microwave oven | (1) |  |  |
|  | Glass pipettes (5 & 10ml) | 50 each |  |  |
|  | Pipette glass(Pyrex) graduated 10 m1 | 2 each |  |  |
|  | Glass beakers (Pyrex) (10, 100,500,1000 ml) | 5 each |  |  |
|  | Glass cylinder (Pyrex) 100, 250, 500, 1000 ml graduated | 5 each |  |  |
|  | Flask conical glass(Pyrex) 100,500, 1000 ml | 5 each |  |  |
|  | Tips for pipettes (Blue, Yellow, White) | ~ 1000 each |  |  |
|  | Ice box | 2 |  |  |
|  | Reagent Bottles (100, 500, 1000 ml) | 5 each |  |  |
|  | Cryo Boxes | 10 |  |  |
|  | Eppendorf tubes (1.5ml) | ~ 1000 |  |  |
|  | Screw cap tubes (1.5 ml) | ~ 1000 |  |  |
|  | Falcon tubes (15 & 50 ml) | ~ 500 each |  |  |
|  | Measuring cylinders (10 ml, 50 ml, 100 ml, 500 ml, 1000 ml) | 2 each |  |  |
|  | Rotary evaporator with vacuum pump and chiller | 01 |  |  |
|  | Organ baths | 10 |  |  |
|  | Power lab (04 channel) with accessories and lab tutor software | 01 |  |  |
|  | Isometric and isotonic transducers | 04 each |  |  |
|  | Bridge pod | 04 |  |  |
|  | Kymographs | 10 |  |  |
|  | Rat holders | 05 |  |  |
|  | Metabolic cages (For animal house) | 10 |  |  |
|  | Dissection boxes | 10 |  |  |
|  | Cages for rats, mice, rabbits, guinea pigs (For animal house) | 05 each |  |  |
|  | Air conditioner (For animal house) | 01 |  |  |
|  | Dissecting table (For animal house) | 01 |  |  |
|  | Refrigerator (For animal house) | 01 |  |  |

**Recommended Books**

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| Basic and Clinical Pharmacology | Katzung BG | Latest edition |
| Pharmacological basis of therapeutics | Goodman Gillman | = |
| Pharmacology | Rang and Dale |  |
| Essentials of Medical Pharmacology | JD tripathi |  |
| Pharmacology | Lippincott |  |
| Review of Medical Physiology | WF Ganong |  |
| Pretest Pharmacology |  |  |
| British National Formulary |  |  |
| Pharma guide (Pakistan) |  |  |
| Molecular Cell Biology | Lodish |  |
| Biochemistry | Harper |  |