

Faculty of Technology

M.Tech. Biopharmaceutical Technology

(R 2017) Semester – I

BO5111 Formulation and Analytical Techniques in Biopharmaceutical Technology

(Requirements for a batch of 25 students)

| Sl. No. | Description of Equipment | Quantity required (R) | Quantity available (A) | Deficiency (R - A) |
|---------|--|-----------------------|------------------------|--------------------|
| 1. | Granulator | 1 | | |
| 2. | Punching machine | 1 | | |
| 3. | Capsule filler | 1 | | |
| 4. | Disintegration, dissolution and friability testing apparatus | 3 | | |
| 5. | pH meter, physical balances | 2 | | |

Faculty of Technology
M.Tech. Biopharmaceutical Technology
(R 2017) Semester – II
BO5211 Immunopharmacology Laboratory
(Requirements for a batch of 25 students)

| Sl. No. | Description of Equipment | Quantity required (R) | Quantity available (A) | Deficiency (R - A) |
|----------------|---|------------------------------|-------------------------------|---------------------------|
| 1. | Microscopes | 10 | | |
| 2. | restrainers for demo experiments for routes of administrations (mouse, rat, rabbit), animal anesthetics, disposable syringes for animal experiments, purification columns | 25 | | |
| 3. | microplate reader | 1 | | |
| 4. | spectrometer (Visual and UV range, quartz or disposable cuvettes) | 1 | | |
| 5. | PAGE apparatus, Western blot apparatus (dry/semi-dry/wet) | 2 | | |
| 6. | Bench top centrifuge | 1 | | |
| 7. | Refrigerated Centrifuge (with Falcon tube rotors) | 1 | | |
| 8. | Purification matrix (Amersham) for IgG, Protein A columns | 15 | | |
| 9. | Haemocytometer | 10 | | |
| 10. | required strains & consumables, TLC plates and chambers | 15 | | |
| 11. | Ficoll-Hypaque | 1 | | |
| 12. | CO2 incubator | 1 | | |
| 13. | Culture (Laminar air flow chamber) | 1 | | |
| 14. | biosafety cabinet | 1 | | |
| 15. | Flow cytometer | 1 | | |

Faculty of Technology
M.Tech. Biopharmaceutical Technology
(R 2017) Semester – III
BO5311 DRUG DISCOVERY LABORATORY
(Requirements for a batch of 25 students)

| Sl. No. | Description of Equipment | Quantity required (R) | Quantity available (A) | Deficiency (R - A) |
|----------------|---------------------------------|------------------------------|-------------------------------|---------------------------|
| 1. | Soxhlet apparatus | 1 | | |
| 2. | rotary flash evaporator | 1 | | |
| 3. | Hot air oven | 1 | | |
| 4. | sonicator | 1 | | |
| 5. | mortar and pestle | 1 | | |
| 6. | TLC chamber | 1 | | |
| 7. | Fume hood | 1 | | |
| 8. | purification columns | 1 | | |
| 9. | micro-plate reader | 1 | | |
| 10. | UV spectrometer | 1 | | |
| 11. | centrifuge | 1 | | |
| 12. | required strains & consumables | 1 | | |

Faculty of Technology
M.Tech. Biopharmaceutical Technology
(R 2017) Semester – III
BO5312 Pre-clinical Laboratory
(Requirements for a batch of 25 students)

| Sl. No. | Description of Equipment | Quantity required (R) | Quantity available (A) | Deficiency (R - A) |
|----------------|--|------------------------------|-------------------------------|---------------------------|
| 1. | Dissolution testing apparatus | 2 | | |
| 2. | Disintegration testing apparatus | 2 | | |
| 3. | CO2 incubator | 1 | | |
| 4. | Inverted microscope | 1 | | |
| 5. | Biosafety hoods | 1 | | |
| 6. | Spectrophotometer | 1 | | |
| 7. | PCR machine | 2 | | |
| 8. | Using Chamber for permeation studies | 2 | | |
| 9. | Consumables - cell culture plates, micro-titre plates, membranes, reagents | 1 | | |