

# PROGRAMME CURRICULUM

## MASTER OF SCIENCE IN MEDICAL PHARMACOLOGY

### Specialisation in Clinical Pharmacology

#### Core Courses

| S/N         | COURSE TITLE                                 | COURSE CODE | UNITS |
|-------------|----------------------------------------------|-------------|-------|
| 1           | Capstone Project                             | PHC5001     | 6     |
| 2           | Effective Scientific Communication           | PHC5003     | 2     |
| 3           | Ethics & Good Practice in Medicinal Research | PHC5004     | 2     |
| 4           | Clinical Pharmacology I                      | PHC5006     | 4     |
| 5           | Clinical Pharmacology II                     | PHC5007     | 4     |
| 6           | Leadership in Applied Biomedicine            | ABM5001     | 2     |
| 7           | Advanced Biostatistics for Research          | ABM5002     | 2     |
| TOTAL UNITS |                                              |             | 22    |

### Specialisation in Translational Pharmacology

#### Core Courses

| S/N         | COURSE TITLE                                 | COURSE CODE | UNITS |
|-------------|----------------------------------------------|-------------|-------|
| 1           | Capstone Project                             | PHC5001     | 6     |
| 2           | Effective Scientific Communication           | PHC5003     | 2     |
| 3           | Ethics & Good Practice in Medicinal Research | PHC5004     | 2     |
| 4           | Principles and Praxis of Pharmacology        | PHC5005     | 4     |
| 5           | Leadership in Applied Biomedicine            | ABM5001     | 2     |
| 6           | Advanced Biostatistics for Research          | ABM5002     | 2     |
| TOTAL UNITS |                                              |             | 18    |

## Specialisation in Pharmacology Education

### Core Courses

| S/N                | COURSE TITLE                                      | COURSE CODE | UNITS     |
|--------------------|---------------------------------------------------|-------------|-----------|
| 1                  | Capstone Project                                  | PHC5001     | 6         |
| 2                  | Effective Scientific Communication                | PHC5003     | 2         |
| 3                  | Principles and Praxis of Pharmacology             | PHC5005     | 4         |
| 4                  | Leadership and Innovation in Healthcare Education | PHC5009     | 2         |
| 5                  | Curriculum Design for Pharmacology                | PHC5011     | 4         |
| 6                  | Mixed Methods Research in Medical Education       | PHC5012     | 4         |
| <b>TOTAL UNITS</b> |                                                   |             | <b>22</b> |

## Specialisation in Regulatory Pharmacology

### Core Courses

| S/N                | COURSE TITLE                                          | COURSE CODE | UNITS     |
|--------------------|-------------------------------------------------------|-------------|-----------|
| 1                  | Industry Internship*                                  | PHC5002     | 6         |
| 2                  | Effective Scientific Communication                    | PHC5003     | 2         |
| 3                  | Ethics & Good Practice in Medicinal Research (TBC)    | PHC5004     | 2         |
| 4                  | Principles and Praxis of Pharmacology                 | PHC5005     | 4         |
| 5                  | Regulatory Affairs Foundations and Practical Approach | PHC5008     | 2         |
| 6                  | Pharmacovigilance and Regulatory Affairs              | PHC5104     | 4         |
| 7                  | Toxicology and Safety Assessments                     | PHC5106     | 4         |
| <b>TOTAL UNITS</b> |                                                       |             | <b>24</b> |

\*Students who are unable to secure an internship by end of Semester 1 / beginning of Semester 2 will take on the Capstone Project PHC5001.

## Elective Courses

To graduate with a specialisation, students must complete a minimum of 3 elective courses from their chosen specialisation.

| S/N                                              | COURSE TITLE                                            | COURSE CODE | UNITS |
|--------------------------------------------------|---------------------------------------------------------|-------------|-------|
| <b>Clinical Pharmacology Specialisation</b>      |                                                         |             |       |
| 1                                                | Clinical Trial Design and Management                    | PHC5101     | 4     |
| 2                                                | N-of-1 Pharmacology                                     | PHC5102     | 2     |
| 3                                                | Personalized Medicines and Pharmacometrics              | PHC5103     | 4     |
| 4                                                | Pharmacovigilance and Regulatory Affairs                | PHC5104     | 4     |
| 5                                                | Natural Products & Complementary Medicine               | PHC5105     | 2     |
| <b>Translational Pharmacology Specialisation</b> |                                                         |             |       |
| 1                                                | Toxicology and Safety Assessment                        | PHC5106     | 4     |
| 2                                                | Next Generation Medicines: From Bench to Bedside        | PHC5107     | 4     |
| 3                                                | Green and Sustainable Pharmacology                      | PHC5108     | 2     |
| 4                                                | The Responsible In-vivo Scientist                       | PHC5116     | 2     |
| 5                                                | Advanced Human Pharmacology                             | MDG5204     | 4     |
| 6                                                | Current Practices in Biotechnology                      | MDG5232     | 4     |
| 7                                                | Understanding IP and Patents in the Biomedical Industry | MDG5252     | 4     |
| <b>Pharmacology Education Specialisation</b>     |                                                         |             |       |
| 1                                                | Neuroscience of Learning for Healthcare Educators       | PHC5115     | 2     |
| 2                                                | Teaching Diverse Minds in Healthcare Education          | PHC5113     | 4     |
| 3                                                | Transforming Your Teaching using Technology             | PHC5114     | 4     |

| S/N                                           | COURSE TITLE                                                                           | COURSE CODE    | UNITS |
|-----------------------------------------------|----------------------------------------------------------------------------------------|----------------|-------|
| <b>Regulatory Pharmacology Specialisation</b> |                                                                                        |                |       |
| 1                                             | Regulatory and Safety Sciences for Medical Devices                                     | <b>PHC5109</b> | 2     |
| 2                                             | Regulatory Application of New Approach Methodologies (NAMs) & Next-Gen Risk Assessment | <b>PHC5110</b> | 2     |
| 3                                             | Integrated Biorisk Preparedness for Biomedical Professionals                           | <b>PHC5111</b> | 4     |
| 4                                             | Regulatory Science for Healthcare Products                                             | <b>PHC5112</b> | 2     |
| 5                                             | The Responsible In-vivo Scientist                                                      | <b>PHC5116</b> | 2     |
| <b>Other Electives</b>                        |                                                                                        |                |       |
| 1                                             | Seminar Series in Medical Pharmacology                                                 | <b>PHC5117</b> | 2     |