

# PROGRAMME CURRICULUM

## MASTER OF SCIENCE IN APPLIED BIOMEDICINE

### Core Courses

All students, regardless of specialisation, are required to complete the following 4 core courses (12 units):

SEMESTER	PROPOSED COURSE TITLE	COURSE CODE	UNITS
1	Biomedical Innovation & Enterprise	<b>ABM5003</b>	4
1	Advanced Biomedical Informatics	<b>BMi5101B</b>	4
2	Advanced Biostatistics for Research	<b>ABM5002</b>	2
Special Term	Leadership in Biomedicine	<b>ABM5001</b>	2

### Compulsory Courses by Specialisation

To graduate with a specialisation, students must complete 5 compulsory courses (20 units) specific to their chosen specialisation:

#### VACCINOLOGY AND IMMUNOTHERAPY SPECIALISATION

Compulsory Courses (20 units)

SEMESTER	PROPOSED COURSE TITLE	COURSE CODE	UNITS
1	Applied Immunology	<b>ABM5101</b>	4
1	Vaccine Development and its Modern Applications	<b>ABM5102</b>	4
1	Advanced Technologies in Immune Therapeutic Development	<b>ABM5103</b>	4
2	Microbiome-Aging-Immunity Crosstalk	<b>ABM5104</b>	4
2	Clinical Immunology and Immunotherapeutics	<b>MDG5207</b>	4

## INFECTIOUS DISEASES MANAGEMENT SPECIALISATION

Compulsory Courses (20 units)

SEMESTER	PROPOSED COURSE TITLE	COURSE CODE	UNITS
1	Vaccine Development and its Modern Applications	<b>ABM5102</b>	4
1	Drugs Used in Infectious Diseases	<b>ABM5105</b>	4
1	Infectious Diseases: Principles & Research Methods	<b>MDG5246</b>	4
2	One World, One Health: Ecosystems, Animals and Us	<b>ABM5107</b>	4
2	Control of Infectious Diseases*	<b>SPH5201</b>	4
2	Urban Outbreak Management*	<b>SPH5205</b>	4
Special Term	Urban Field Epidemiology*	<b>SPH5206</b>	4

\*Students may read only one of the three approved SPH courses.

## DRUG DISCOVERY AND DEVELOPMENT SPECIALISATION

Compulsory Courses (20 units)

SEMESTER	PROPOSED COURSE TITLE	COURSE CODE	UNITS
1	Drugs Used in Infectious Diseases	<b>ABM5105</b>	4
1	Advanced Topics in Pharmacology	<b>MDG5204</b>	4
2	Anticancer Therapeutics	<b>ABM5106</b>	4
2	Current Practices in Biotechnology	<b>MDG5232</b>	4
2	Current Topics in Drug Design and Development	<b>MDG5233</b>	4

**Note:** Do not select a course as an elective if you have already completed it as part of your specialisation's compulsory requirements.

## General Elective Courses

Students from any specialisation or the non-specialisation path may select elective courses from the list below, unless the course has already been taken as part of their compulsory course requirements.

SEMESTER	PROPOSED COURSE TITLE	COURSE CODE	UNITS
1	Applied Immunology	<b>ABM5101</b>	4
1	Vaccine development and its modern applications	<b>ABM5102</b>	4
1	Advanced technologies in immune therapeutic development	<b>ABM5103</b>	4
1	Drugs Used in Infectious Diseases	<b>ABM5105</b>	4
1	Advanced Topics in Pharmacology	<b>MDG5204</b>	4
1	Advanced Topics in Signal Transduction	<b>MDG5229</b>	4
1	Infectious Diseases: Principles & Research Methods	<b>MDG5246</b>	4
2	Microbiome-Aging-Immunity crosstalk	<b>ABM5104</b>	4
2	Anticancer Therapeutics	<b>ABM5106</b>	4
2	One World, One Health: Ecosystems, Animals and Us	<b>ABM5107</b>	4
2	Techniques in Biomedical Research	<b>MDG5102</b>	4
2	Clinical Immunology and Immunotherapeutics	<b>MDG5207</b>	4
2	Current Practices in Biotechnology	<b>MDG5232</b>	4
2	Current Topics in Drug Design and Development	<b>MDG5233</b>	4
1 & 2	Capstone Project*	<b>ABM5004</b>	8

*\*The Capstone Project is a single 8-unit course that runs across Semesters 1 and 2. For students choosing to take on the Capstone Project, they are required to find a supervisor prior to their enrolment.*