Course Content

Scientific Skills (20 credits)
In this module you will develop an appreciation of the history and philosophy of science and, specifically, a critical awareness of issues and advances in biomedical science. You will also develop skills in team working, communication and presentation through, for example, the development and delivery of a high quality seminar presentation.

Applied Medical Microbiology (20 credits)
This module will examine in depth the mechanisms of microbial virulence and pathogenicity and provide an insight into how clinically relevant bacteria, parasites and viruses cause disease in humans. You will critically explore ways in which clinical infection is managed in healthcare environments and understand the role of public health control in the management of infectious disease. You will evaluate current methods, as well as new technologies that are used in diagnostic microbiology for the identification of microbial pathogens from clinical, environmental and food samples.

Haematology and Transfusion Science (20 credits)
In this module you will learn about haematological disorders and how they are investigated by laboratory procedures and new technologies, e.g. flow cytometry and immunophenotyping. The utilization of haemopoietic stem cells in bone marrow transplantation and the hazards of transfusion, e.g. transfusion reaction and transmission of diseases, will also be covered.

Biomedical Applications of Molecular Biology (20 credits)
In this module you will study the structure and organisation of human DNA, and how the tools of molecular biology can be used in modern biomedical science and hospital research laboratories to analyse and characterize human diseases at the molecular level. You will also develop team-working skills in the development and delivery of a high quality poster presentation on the subject of a recent advance in biomedical research.

Toxicology and Pathology (20 credits)
In this module you will examine the principles of xenobiotic toxicity, using named examples of environmental pollutants, occupational hazards, and pharmaceutical agents. The causes, pathogenesis, investigations and treatments of several major diseases (e.g. nasopharyngeal carcinoma, diabetes mellitus, liver disease, cardiovascular disorder and immune disorder) will be discussed. You will examine case studies to enable you to link toxicology, pathology and laboratory findings.

Immunotechnology (20 credits)
In this module you will gain an understanding of the cellular and molecular components of the immune system. You will learn about the role of B and T cells in immune response, the genes and proteins of the major histocompatibility complex and the mechanisms behind antigen processing and presentation. You will explore recent developments in our understanding of allergy and immune function. The application of monoclonal antibodies in therapeutics, diagnostics and research will be discussed. You will also examine various clinical immunological techniques and their applications.

Research Project (60 credits)
In this module you will conduct an independent piece of research, either as a practical laboratory-based project, or a piece of qualitative research (for example surveys). This involves design, development and implementation of research in a particular field of study relevant to your programme. You will critically analyse data/information generated, and communicate the outcomes in a written report, which will develop your skills in summarising information, scientific writing, and presentation.

Assessment
Assessment of modules is normally based on a combination of coursework and examination. Coursework can include laboratory or project reports, tutorial exercises, laboratory performance and oral and poster presentation. The Research Project is assessed by submission of a research proposal and the project thesis.

Tuition Fee*
1st Instalment HK$78,000 (Year 1) payable upon registration
2nd Instalment HK$43,000 (Year 2) payable upon start of 2nd year
3rd Instalment HK$35,000 (Year 2) payable upon start of Research Project`(subject to review)`

* This is the rate of tuition fee for Academic Year 2023/24. Fees are reviewed annually and are subject to change without prior notice.

Application
Applicants should submit:
1. Duly completed HKU SPACE application form#;
2. Copies of academic certificates and results slips;
3. A copy of HKID card or passport; and
4. An application fee of HK$200 (non-refundable) by crossed cheque made payable to "HKU SPACE".

All documents should be sent to Ms. Winnie Choi, 13/F, Fortress Tower, 250 King's Road, North Point, Hong Kong

Application forms can be obtained from any HKU SPACE Learning Centres or download from http://hkuspace.hku.hk

Application Deadline
30 June 2023

Enquiries Tel: 2975 5697 (Ms. Winnie Choi) Email: winnie.sww.choi@hkuspace.hku.hk
Website: http://hkuspace.hku.hk/prog/msc-in-biomedical-science

Note: The programme is an exempted course under the Non-Local Higher and Professional Education (Regulation) Ordinance. It is a matter of discretion for individual employers to recognize qualification to which this course may lead. Information in this leaflet is subject to change by HKU SPACE and Edinburgh Napier University without prior notice. Please refer to HKU SPACE website or contact Programme Staff for latest information.

HKU SPACE 香港大學專業進修學院 HKU School of Professional and Continuing Education

Edinburgh Napier UNIVERSITY

Master of Science in Biomedical Science
生物醫學理學碩士

THE UNIVERSITY OF HONG KONG
School of Professional and Continuing Education

in association with

EDINBURGH NAPIER UNIVERSITY

Mar 2023

Master of Science in Biomedical Science
生物醫學理學碩士

Part-time degree programme

Programme code: HS025A
Application code: 2145-HS025A

HKU SPACE

HKU School of Professional and Continuing Education (SPACE) acts as an extension arm of the University to deliver HKU's mission and role in providing lifelong learning opportunities to the community. With over 960 full-time staff members and some 1,900 part-time teachers, HKU SPACE is a leading local provider in continuing education. Course enrolments since 1956 have exceeded 3 million, with annual course enrolment close to 89,284. In 2019/20, this was equivalent to some 22,504 full-time equivalent students.

Edinburgh Napier University

Edinburgh Napier University in an ambitious and innovative university with strong links to industry. They work closely with industry contacts and partners to develop and deliver their courses, many of which are accredited or recognised by leading industry bodies. It's no surprise, then, that more than 95% of graduates are in work or further education within six months of graduating.

Academics excel in their fields. Their research improves lives in Scotland and across the globe. They teach and inspire you, as well as connect you to industry and help you build international networks you will value for the rest of your life.

Edinburgh Napier is committed to providing the best possible teaching for its students. They were awarded five stars for teaching in the 2019 QS Stars international university rankings. In 2020, the National Student Survey saw nine of the University's subjects achieve 100% student satisfaction, and ranked Edinburgh Napier the top university in Edinburgh for student satisfaction. What's more, Edinburgh Napier is the top modern university in Scotland (Good University Guide 2021).

One of Scotland's largest universities, Edinburgh Napier has more than 20,000 students from over 150 countries studying in Edinburgh, online and at partners across the globe.

Programme Overview

The MSc in Biomedical Science is a part-time degree programme designed to meet the needs of laboratory professionals who wish to advance their academic qualifications to post-graduate level for career and personal development. These staff may be in employment in hospital laboratories under the Hospital Authority or in government and private research laboratories in the biomedical sector in Hong Kong. The curriculum is based on the parent MSc in Biomedical Science which has been running in Edinburgh Napier University. By taking this programme, and tailoring it to the needs of Hong Kong students, using the expertise available from the collaborative partners at HKU SPACE, we are sure that your needs and aspirations will be met.

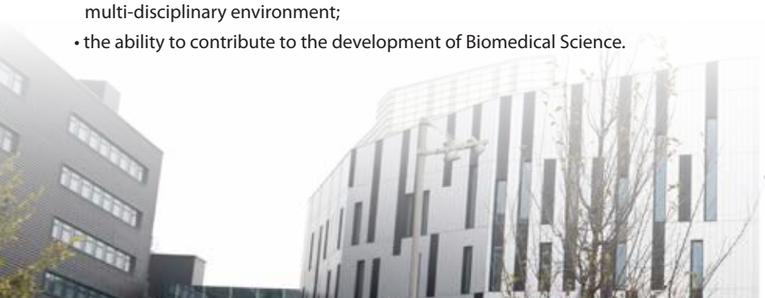
The programme provides graduates with a qualification that would help them in career advancement in the public sector as Medical Technologist (MT) or Senior Medical Technologist (SMT); or as Laboratory Director in private medical laboratories.

Programme Highlights

The aim of the programme is to provide students with a detailed critical knowledge and understanding of the theoretical and practical aspects of specialist disciplines, and the integration of these disciplines for use in Biomedical Science. The programme is designed to be responsive to the needs of students and employers.

The programme will provide you with the qualities and transferable skills necessary for employment requiring:

- the exercise of initiative and personal responsibility, commitment and reflection;
- decision making in complex, unpredictable and changing situations;
- the leadership, teamwork and time management skills necessary to work in a multi-disciplinary environment;
- the ability to contribute to the development of Biomedical Science.



Programme Structure

The programme will be delivered in trimesters of 15 weeks (including all examinations). Students will be required to complete 180 credits for the award of the MSc, including six taught modules of 20 credits each and a Research Project of 60 credits. You will be required to take two taught modules in each of the first three trimesters and to complete the Research Project over two trimesters. The period required for completion of the programme is a minimum of two calendar years, up to a maximum of four years.

Module Title	Credits
Scientific Skills	20
Applied Medical Microbiology	20
Haematology and Transfusion Science	20
Biomedical Applications of Molecular Biology	20
Toxicology and Pathology	20
Immunotechnology	20
Research Project	60
	180

Entry Requirements

To gain entry to the MSc in Biomedical Science a student is expected to have achieved either:

1. an Honours Degree in a biological science discipline, e.g. BSc (Hons) in Life Sciences (Applied Medical Sciences), Biological Science or equivalent;

OR

2. an Ordinary Degree in a biological science discipline, e.g. BSc in Life Sciences (Applied Medical Sciences), Biological Science or equivalent, and at least two years of post-qualification relevant work experience. Consideration will be made on a case-by-case basis.

"I enjoyed attending the laboratory seminars which provided state–of–the-art technologies and practical skills."

"The programme not only offered a basic background of biomedical technologies but also strengthened my communication skills and critical thinking in my work."

- Vivian 2011

"The course has helped me with my career in many ways… it builds up my confidence... upgrades my problem solving skills, increases my EQ and AQ."

- Polly 2013

"I was impressed with the lecturers who are experts from their respective professions; their experience has widened our horizon."

- Sharon 2016