



**Institute of Biochemistry, Molecular Biology and Biotechnology
(IBMBB), University of Colombo**

Advanced Certificate in Immunology

This is a Sri Lanka Quality Framework (SLQF) Level 2 course and equivalent to National Vocational Qualification Framework (NVQF) Level 4

➤ **About the course:**

Immunology is the study of the components of immune system, including their function and interactions. We live in an environment surrounded by microorganisms, many of which cause diseases. Despite the continuous exposure, we are often protected against the disease causing pathogens and other conditions. In studying immunology, we address questions such as, How does the human body defend itself? How does the body eliminate the pathogens and cure itself when infected? Why and how do we develop long-lasting immunity to infectious diseases?

Immunology is relatively new branch of science which has a high demand in its applications in biomedical sciences. The Advanced Certificate Course in Immunology is aimed to provide a foundation to young students who wish to pursue careers in medicine, biological and biomedical sciences as well as those who wish to seek career opportunities in medical laboratory diagnostics. At the same time this course will enhance knowledge and provide theoretical basis on immunodiagnostics for those who are already engaged as medical laboratory technologists.

The course is taught through blended learning models where direct teaching is combined with online teaching. The course will comprise with theory and practical (online and face-to-face), assignments and tutorials where students will be able to acquire a wider and more effective learning experience.

The course is conducted through blended learning procedure where both direct and online teaching/learning are combined.

➤ **Course objective:**

To provide knowledge of the immune system and the immune response in order to understand the basis of protective immune mechanisms and the basis for development of immunodiagnostics.

➤ **Learning outcomes:**

At the end of the course the students will be able to

- Describe the basic functions of the immune system and how the immune system function in disease conditions
- Describe the features of the different types of immune responses and their components
- Discuss the failures and adverse responses of the immune system
- Outline antigen and antibody interactions and describe their application in immunodiagnostics

➤ **For whom:**

Those who are interested in

- (a) pursuing future studies and careers in biomedical sciences,
- (b) refreshing their knowledge in how the immune system prevent infections to remain healthy and protect us from infections/diseases,
- (c) applications of immunodiagnostics.

➤ **Entry requirements:**

Minimum requirement is qualified in GCE (O/L) including credit passes for English and Science or higher educational qualifications.

➤ **Duration:**

- 4 months
- Contact hours on Friday evenings (5.00 - 7.00 pm) and Saturdays (9.00 am - 5.00 pm).
- Covers 500 notional learning hours including
 - 20 lecture hours
 - 100 practical hours
 - 380 online learning hours

➤ **Admission procedure:**

Candidates will be selected to the course based on the satisfactory score at the placement test.

➤ **Course fee:** Rs. 60,000/=

➤ **Assessment criteria:**

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|---------------------------------|-----|
| • On-line practical assessment | 10% |
| • In-class practical assessment | 20% |
| • On-line theory assessment | 20% |
| • Final theory examination | 50% |

➤ **Certification:**

Advanced Certificate in Immunology (**AdvCert (Immunology)**) will be awarded to those who have successfully completed the on-line practical assessment, in-class practical assessment, On-line theory assessment and final theory examination.

Key to grades:

- 75 and above : Distinction
- From 60-74 : Merit
- From 50-59 : Pass
- 49 and below : Failure

Course content:

Course Unit	Course Unit	Theory (contact hours)	Practical (contact hours)	Online hours
AC 1	Variety of Animal Life and lines of defense	2	10	40
AC 2	Basics in Immunology	4	20	100
AC 3	Antigen-Antibody Interactions and Immunodiagnostics	6	20	100
AC 4	Failures of the Immune System & Immunity to Infection	4	10	60
AC 5	Immunological Techniques	4	40	80
Total at the end of the Course		20	100	380

Application Deadline: Extended till 5th February 2020

Course Coordinator: Dr Narmada Fernando (0112552528, ex. 410 & 405)

Director
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