



## CARDIOVASCULAR IMAGING 1 & 2

The first module introduces the students to the principles of catheterization for both adults and children, and to the various related procedures with emphasis on the safety of use. It highlights the indications, risks and complications that may arise in different situations to create an awareness amongst students on the importance of safe and appropriate selection of procedures and use of equipment.

The second module further develops the students' understanding of their area of expertise. It exposes the students to new diagnostic and treatment modalities involving radio-nuclear imaging and stresses on protocols and procedures that ensure patient and operator safety.

## PERFUSION TECHNOLOGY 1 & 2

These modules introduce the students to the principles and techniques of handling the heart lung machines, ECMO and other accessory equipment. They prepare the students to handle, control and treat cases accordingly, in making the right decisions and in preventing complications.

## PERI-OPERATIVE NURSING 1 & 2

The purpose of these modules is to introduce the students to the basic nursing procedure in cardiology with the appropriate policies of preparation, treatment and recovery actions. The modules also aim at enhancing the technical know-how of the nurses in supporting the surgeons particularly in the preparation and providing correct instruments.

For more information, kindly contact:

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# Graduate Certificate in Cardiovascular & Thoracic Sciences



At the heart of learning



IJN COLLEGE

W4P0027



## INTRODUCTION

The Cert. CVTS is a **ONE** year post-basic programme offered by IJN College for healthcare professionals in the fields of:

- Cardiovascular Technology
- Cardiovascular Imaging
- Perfusion Technology
- Peri-operative Nursing

This programme provides students with a strong foundation in the basic sciences (anatomy, physiology, biochemistry and pharmacology) and lays the foundation for them to acquire the skills and competencies required to safely manage patients within a dedicated heart care setting.

This programme is geared towards health-care professionals who are already working in the cardiac care setting or who wish to pursue a career in the above fields.

Radiographers, Ultrasonographers, nurses, Bio-sciences, graduates, Medical Assistants, wishing to specialize in the above disciplines or to gain additional experience are encouraged to apply.

## ENTRY REQUIREMENTS

### LOCAL STUDENT

- Certificate holders with **ONE** (1) year working experience in related fields; OR,
- Diploma in Medical Laboratory Technology / Medical Assistants / Radiography / Nursing; OR
- Bachelor in Biomedicine / Nursing; AND
- Credit in Malay Language at SPM / SPMV level

### INTERNATIONAL STUDENT

- Certificate holders with **ONE** (1) year working experience in related fields; OR,
- Diploma in Medical Laboratory Technology / Medical Assistants / Radiography / Nursing; OR
- Bachelor in Biomedicine / Nursing; AND
- Minimum score of 5.5 band in the IELTS or equivalent.

## METHODOLOGY

- Full time intensive programme with classroom lectures
- Practical sessions in the respective areas on weekdays
- Guided by Clinical Instructors, experienced Mentors and Senior staff

## ASSESSMENT

Students will be assessed through a written exam and completion of competency book.

The written exam is a comprehensive examination to assess the students' knowledge of basic sciences and application to clinical concepts.

Because competencies form the bedrock for effective and superior performance, the college emphasizes the need for the students to complete the number of cases that have been predetermined. Students will be assisted by CIs, Nurse Mentors and Senior Staffs in the respective clinical setting to assist them in acquiring the skills.

## MODULE SYNOPSIS

### ANATOMY & PHYSIOLOGY

An overview of the cardiovascular, respiratory, renal and G. I. systems, as well as the endocrine system. The objective is to enable the students to relate the basics of anatomy and physiology with diseases of the cardiovascular system.

### BIOCHEMISTRY, PHARMACOLOGY AND HEART DISEASE

Students will be taught the basics of human biochemistry, pharmacology and heart disease, the principles of electro-cardiography and the commonly used drugs in cardiovascular disease.

The purpose of this module is to allow the students to relate this knowledge to that of the cardiology and cardiothoracic environment.

### HAEMODYNAMIC MONITORING

This module introduces the students to the different areas of service and the roles of the care providers in the field of cardiovascular and cardiothoracic care; introduction to the principles of haemodynamic monitoring and the IABP to ensure safe delivery of service to patients.

### CARDIOVASCULAR TECHNOLOGY 1 & 2

The purpose of these modules is to develop the students' skills on the right approach in handling haemodynamic data especially during interventional procedures. It also enhances the students' skills in assessing cardiac situation and the ability to evaluate repercussions and impact of the result.