

The purpose of this document is to serve as a template to develop a facility-based intern training program which contains the minimum requirements as prescribed in the National Curriculum must be read with the following documents:

- *The National Curriculum: Medical Physics – CMS 01 PH*
- *Guideline for Submission and Assessment of Portfolio of Evidence: Medical Physics – CMS 02 PH*
- *Policy regarding the Training of Intern Medical Scientists – CMS A*
- *Guidelines on Assessment and Moderation of the Portfolio of Evidence: Intern Medical Scientists – CMS H*

*The purpose of using a light grey font in this template is to guide on the content. Please replace by your content.*

## INTERN TRAINING PROGRAM FOR MEDICAL PHYSICISTS

### TRAINING FACILITY

|                           |  |
|---------------------------|--|
| Head of Training Facility |  |
| Telephone number          |  |
| Email                     |  |
| Physical address          |  |

### TRAINING DEPARTMENT

|                             |  |
|-----------------------------|--|
| Head of Training Department |  |
| Telephone number            |  |
| Email                       |  |
| Physical address            |  |

# TABLE OF CONTENTS

|           |   |          |
|-----------|---|----------|
| <b>1.</b> | <b>INTRODUCTION</b>   | <b>4</b> |
| 1.1       | The training facility and training department                                   | 4        |
| 1.2       | Satellite facilities which form part of this training program and accreditation | 4        |
| 1.3       | Rotation to other independently HPCSA accredited departments                    | 4        |
| <b>2.</b> | <b>ACCEPTANCE CRITERIA FOR INTERNSHIP TRAINING</b>                              | <b>4</b> |
| <b>3.</b> | <b>OVERALL COURSE OUTCOMES</b>  | <b>4</b> |
| <b>4.</b> | <b>DISCIPLINE-SPECIFIC LEARNING OUTCOMES</b>                                    | <b>5</b> |
| 4.1       | Radiotherapy  | 5        |
| 4.2       | Diagnostic Radiology  | 5        |
| 4.3       | Nuclear Medicine  | 6        |
| 4.4       | Radiation Protection  | 6        |
| 4.5       | Magnetic Resonance  | 7        |
| 4.6       | Ultrasound  |          |
| 4.7       | Medical Imaging   |          |
| 4.8       | Principles of Research  | 7        |
| <b>5.</b> | <b>THE ROTATION ROSTER</b>  | <b>7</b> |
| <b>6.</b> | <b>THE PORTFOLIO OF EVIDENCE</b>  | <b>8</b> |
| <b>7.</b> | <b>THE FACILITY-BASED EXIT ASSESSMENT</b>                                       | <b>8</b> |
| <b>8.</b> | <b>THE OUTCOME BY PRESCRIBED BOARD-APPROVED COMPETENCY-BASED ASSESSMENT</b>     | <b>8</b> |

## **1. INTRODUCTION**

### **1.1 The training facility and training department**

This facility-based internship-training program is based on The National Curriculum and must contain the minimum prescribed requirements.

### **1.2 Satellite facilities which form part of this training program and accreditation**

Describe in detail the facility, conditions, equipment, staff and physical address of satellite facility.

Which component(s) and duration of the training program will be conducted at this facility?

Who will be responsible for training at this facility?

### **1.3 Rotation to other independently HPCSA accredited training departments**

Provide period of accreditation of this facility.

Provide the physical address of the facility.

Describe in detail the facility, conditions, equipment and staff at this facility

Which component(s) and duration of the training program will be conducted at this facility?

Who will be responsible for training at this facility?

How many intern candidates are allowed at any given time at this facility?

## **2. ACCEPTANCE CRITERIA FOR INTERNSHIP TRAINING**

Prescribe the entrance level academic qualification, selection criteria or any other requirements

### **3. OVERALL COURSE OUTCOMES**

**At the end of this internship, the intern will be able to:**

- 3.1 *Apply* scientific principles (including discipline-specific academic knowledge).
- 3.2 *Demonstrate an understanding* of relevant clinical principles (including discipline-specific academic knowledge).
- 3.3 *Perform* the administration and management functions of a department.
- 3.4 *Maintain* appropriate inter-disciplinary relationships.
- 3.5 *Apply* relevant principles in terms of quality process, radiation safety and the quality management systems.
- 3.6 *Be proficient* in relevant information and communication technologies
- 3.7 *Recognise and apply* professional conduct and ethical principles.
- 3.8 *Define and apply* research principles, compile a scientific report and present the findings.

### **4. DISCIPLINE-SPECIFIC LEARNING OUTCOMES**

Internship is measured or assessed based on the specific outcomes of various components all leading to the overall competency as defined in overall outcomes. Rotational time periods spent by the Medical Physics intern in the different disciplines should be at least 10 months in Radiation Oncology, 6 months in Nuclear Medicine, 3 months in Diagnostic Radiology and 2 months dedicated to Radiation Protection. The minimum total period of internship is 24 months.

## **4.1 RADIOTHERAPY**

At the end of this component, the intern must have the necessary academic knowledge and abilities with regards the following (detailed in the *National Curriculum: Medical Physics CMS 01 PH* document):

### 4.1.1 Dosimetry and Quality Control

*Assessment:* Please indicate method of assessment and frequency (refers to The National Curriculum for minimum standard)

### 4.1.2 Treatment Planning

*Assessment:* Please indicate method of assessment and frequency (refers to The National Curriculum for minimum standard)

### 4.1.3 Brachytherapy

*Assessment:* Please indicate method of assessment and frequency (refers to The National Curriculum for minimum standard)

### 4.1.4 Quality Assurance and Safety

*Assessment:* Please indicate method of assessment and frequency (refers to The National Curriculum for minimum standard)

## **4.2 DIAGNOSTIC RADIOLOGY**

At the end of this component, the intern must have the necessary academic knowledge and abilities with regards the following (detailed in the *National Curriculum: Medical Physics CMS 01 PH* document):

### **4.2.1 Equipment Performance Assessment**

*Assessment:* Please indicate method of assessment and frequency (refers to The National Curriculum for minimum standard)

### **4.2.2 Patient Dosimetry**

*Assessment:* Please indicate method of assessment and frequency (refers to The National Curriculum for minimum standard)

## **4.3 NUCLEAR MEDICINE**

At the end of this component, the intern must have the necessary academic knowledge and abilities with regards the following (detailed in the *National Curriculum: Medical Physics CMS 01 PH* document):

### **4.3.1 Use of Equipment and Clinical Applications**

*Assessment:* Please indicate method of assessment and frequency (refers to The National Curriculum for minimum standard)

### **4.3.2 Quality Assurance and Safety**

*Assessment:* Please indicate method of assessment and frequency (refers to The National Curriculum for minimum standard)

## **4.4 RADIATION PROTECTION**

At the end of this component, the intern must have the necessary academic knowledge and abilities with regards the following (detailed in the *National Curriculum: Medical Physics CMS 01 PH* document):

### **4.4.1 Use of Equipment**

*Assessment:* Please indicate method of assessment and frequency (refers to The National Curriculum for minimum standard)

### **4.4.2 Radiation Control and Legislation**

*Assessment:* Please indicate method of assessment and frequency (refers to The National Curriculum for minimum standard)

### **4.4.3 Quality Assurance and Safety**

*Assessment:* Please indicate method of assessment and frequency (refers to The National Curriculum for minimum standard)

## **4.5 MAGNETIC RESONANCE IMAGING**

At the end of this component, the intern must have the necessary academic knowledge and abilities with regards the following (detailed in the *National Curriculum: Medical Physics CMS 01 PH* document):

### **4.5.1 Use of Equipment**

*Assessment:* Please indicate method of assessment and frequency (refers to The National Curriculum for minimum standard)

### **4.5.2 Clinical Applications**



*Assessment:* Please indicate method of assessment and frequency (refers to The National Curriculum for minimum standard)

#### 4.5.3 Quality Assurance and Safety

*Assessment:* Please indicate method of assessment and frequency (refers to The National Curriculum for minimum standard)

### 4.6 **ULTRASOUND**

At the end of this component, the intern must have the necessary academic knowledge and abilities with regards the following (detailed in the *National Curriculum: Medical Physics CMS 01 PH* document):

#### 4.6.1 Use of Equipment and Clinical Applications

*Assessment:* Please indicate method of assessment and frequency (refers to The National Curriculum for minimum standard)

#### 4.6.2 Quality Control and Safety

*Assessment:* Please indicate method of assessment and frequency (refers to The National Curriculum for minimum standard)

## **4.7 MEDICAL IMAGING**

At the end of this component, the intern must have the necessary academic knowledge and abilities with regards the following (detailed in the *National Curriculum: Medical Physics CMS 01 PH* document):

### **4.7.1 Use of Equipment and Clinical Applications**

*Assessment:* Please indicate method of assessment and frequency (refers to The National Curriculum for minimum standard)

### **4.7.2 Quality Control and Safety**

*Assessment:* Please indicate method of assessment and frequency (refers to The National Curriculum for minimum standard)

## **4.8 PRINCIPLES OF RESEARCH**

At the end of this component, the intern must be able to develop protocols, use published literature, identify plagiarism, draw up budgets, apply for funding, produce research reports and perform peer-reviews.

*Assessment:* Please indicate method of assessment and frequency (refers to The National Curriculum for minimum standard)

## **5. THE ROTATION ROSTER**

A schedule/roster for the entire 24-month period must be included in the training program with each component of the programme specified with a period and supervisor. Rotations to other training facilities must be included (if applicable).

## **6. THE PORTFOLIO OF EVIDENCE**

Formal evidence-based continuous assessments must be performed on all components of the training program over the 24-month period.

The evidence of these components shall be used in a structured manner to compile your Portfolio of Evidence.

This is an evidence-based document and will not be accepted without original signatures and dates of each assessment.

The Guideline for Submission and Assessment of the Portfolio of Evidence (CMS 02 PH) prescribes the components and structure of the self-assessment and must be completed by the intern candidate, supervisor and head of training program.

## **7. THE FACILITY-BASED EXIT ASSESSMENT**

**A formal outcome-based assessment will be conducted by the training department to ensure that the candidate has acquired the necessary skills, academic knowledge and practical competencies outlined in the syllabus. Prescribe the format of the assessment and assessors.**

Refer to Policy regarding the training of Intern Medical Scientists (CMS A) for a definition of this examination.

The Intern Duty certificate contained in this document shall be completed by the head of the training program and formally approved by the head of the training facility before the Portfolio of Evidence may be submitted to the HPCSA.

## **8. OUTCOME ASSESSMENT BY A PRESCRIBED BOARD-APPROVED COMPETENCY-BASED ASSESSMENT**

**This Portfolio of Evidence serves as a Board-approved competency-based examination.**

The assessment of the Portfolio of Evidence is outcome-based and will rely on the original evidence presented and the completed Guideline for the Submission and Assessment of the Portfolio of Evidence (CMS 02 PH).

Refer to Guidelines on Assessment and Moderation of the Portfolio of Evidence: Intern Medical Scientists (CMS H) and Policy regarding the Training of Intern Medical Scientists (CMS A) for a detailed process on the assessment.