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**POSTGRADUATE INSTITUTE OF MEDICINE**

**UNIVERSITY OF COLOMBO, SRI LANKA**



**PROSPECTUS**

**POSTGRADUATE DIPLOMA**

**IN**

**ANATOMY**

**2012**

**BOARD OF STUDY IN BASIC MEDICAL SCIENCE**



# Postgraduate Diploma in Anatomy

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**POSTGRADUATE DIPLOMA IN ANATOMY**  
**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**General Guidelines**

## **1. Introduction**

The **Postgraduate Diploma in Anatomy** (Pg Dip. Anat.) is a programme designed to provide postgraduate training in Human Anatomy. It is intended for graduates to acquire and widen their knowledge in Human Anatomy.

This innovative 18 months weekend Diploma programme would provide a solid foundation in Human Anatomy as a basis for teaching, research and clinical work. It considers all aspects of Anatomy through human cadaver dissections, microscopic anatomy, radiological anatomy (Imaging), developmental anatomy and clinical anatomy.

This programme incorporates a strong practical component supplemented by lectures, small group discussions and tutorials. Graduates will gain subject-specific knowledge and skills through coursework.

It is an attractive option for individuals to enhance their knowledge and practical skills in Human Anatomy, pursuing either an academic or clinical career.

## **2. Aims and Course Objectives**

Knowledge in Anatomy forms the basic foundation on which all disciplines in the medical curriculum are built upon. Hence an in-depth knowledge in the subject would no doubt be beneficial to an individual intending to pursue a career in Anatomy or in a related field.

- To educate and train individuals in Human Anatomy.
- To develop a career in Anatomy.
- To impart knowledge in Anatomy pertaining to its clinical and surgical relevance.
- To provide a foundation for research.

### **3. Eligibility Requirements to sit for the Selection Examination**

- (a) A Medical/Dental degree registered with the Sri Lanka Medical Council.
- (b) Satisfactory completion of internship acceptable to the Sri Lanka Medical Council.
- (c) Satisfactory completion of one year of post internship in Medical/Clinical practice or teaching in a university/public/private sector institution in Sri Lanka acceptable to the Postgraduate Institute of Medicine (PGIM).
- (d) The criteria prescribed in paragraphs (a) to (c) must be satisfied by the applicants as at the date of closure of applications, provided that where a short-fall has occurred due to any reasons including sick, maternity or other leave approved by the Board of Study and Board of Management. The doctor concerned should complete such a shortfall in order to become eligible to apply.

**OR**

- (e) Graduate non-medical lecturers in a Faculty of Medicine, Dentistry, Veterinary Science or Allied Health sciences with at least three years of experience in teaching.

## 4. Selection Examination

4.1. Format – The Selection Examination will consist of two components.

4.1.1 **Paper 1** will consist of a Multiple Choice Question (MCQ) paper of 40 minutes duration which will include **20 MCQs** in Anatomy. The marks for this paper will be given **out of 100**.

4.1.2 **Paper 2** will consist of a Structured Essay Question (SEQ) paper of one hours duration which will include four (4) SEQs in Anatomy. All questions should be answered. The structured essay paper will be marked independently by two examiners and marks will be allotted **out of 200**.

4.2. Requirement to pass the selection examination –

A candidate should obtain:

50% or more for Paper 1 (50/100)

**AND**

50% or more for Paper 2 (100/200)

4.3. Number to be selected

The maximum number of students to be enrolled for the course will be 25 or the number indicated in the circular calling for applications. Candidates who pass the selection examination will be selected on merit basis.

4.4. Number of attempts

The number of attempts for the selection examination for the Postgraduate Diploma in Anatomy is unlimited.

## 5. Curriculum

**The Postgraduate Diploma in Anatomy course will be conducted during weekends (Saturdays and Sundays) over a period of 18 months.**

- Module 1 : Foundation I
- Module 2 : Foundation II
- Module 3 : Statistics
- Module 4 : Upper Limb
- Module 5 : Thorax
- Module 6 : Abdomen
- Module 7 : Pelvis & Perineum
- Module 8 : Lower Limb
- Module 9 : Head & Neck
- Module 10: Neuroanatomy
- Module 11: Integrated Human Anatomy

The name of each module, credits allocated and location of practicals are given in **Annexure 1**.

Details of teaching/ learning activities for each module are given in **Annexure 2**.

## 6. Course Schedule and Teaching Instruments

**The course will be conducted within a period of 18 months during Saturdays and Sundays. This will include approximately 60 weekends.**

The teaching activities will include lectures, interactive lectures, tutorials, practicals and assignments. All lectures, tutorials and interactive lectures will be conducted at the PGIM and practicals will be conducted at the respective faculties of Medicine.

The total number of lecture/ tutorial hours will be 365 and for practicals 222 hours. Assignments will consist of approximately 157 hours.

The main course contents of each module are given in **Annexure 3** and in detail in a separate book. (Pg Dip. Anat. curriculum)

The Integrated Anatomy module will consist of a dissection of a selected area, short dissertation and poster session on selected topics in Anatomy.



## 7. Credits

The course consists of several components of teaching/ learning activities that comprise the following credit hours.

<i>Lectures/ Interactive lectures/ Tutorials</i>	<i>– 365 hours – 24 credits</i>
<i>Practicals</i>	<i>– 202 hours – 6.5 credits</i>
<i>Assignments</i>	<i>– 147 hours – 3 credits</i>
<b>Total credits</b>	<b><u>33.5 credits</u></b>

One credit is equivalent 15 hours of lectures/ interactive lectures/ tutorials; 30 hours of practicals and 45 hours of assignments.

## 8. Evaluation and Monitoring

The student will be required to submit the assignments given regularly for each module to the tutors who will allocate gradings.

Instructions to trainees regarding assignments are given in **Annexure 4**.

The practical work which includes dissections will be supervised by the tutors and similar gradings (pass/ fail) will be given for each module.

The method of monitoring progress report is given in **Annexure 5**.

## 9. Eligibility

- 9.1. There should be at least 80% attendance at lectures and practicals for each module.
- 9.2. A Pass grade in all assignments.
- 9.3. A Pass grade in all dissections.

## 10. Components of the Postgraduate Diploma in Anatomy Examination

**10.1** There will be three examinations based on the credit assessment system. Each examination will include several modules as described below. Each examination will be held two weeks after completion of the last module.

Examination I – Modules 1, 2, 4

Examination II – Modules 5, 6, 7, 8

Examination III – Modules 9, 10

Statistics (Module 3) and Integrated Anatomy (Module 11) modules will be examined separately.

Eligibility to sit the module examination - A minimum of 80% attendance at each of the components - lectures, tutorials and practicals.

A candidate who fails to obtain 80% attendance without a valid reason should complete the requirement and sit the next available examination.

### 10.2 Format of Module Examinations

Each module examination will consist of **Multiple Choice Questions (MCQs)**, **Structured Essay Questions (SEQs)**, **Essay** and **Objectively Structured Practical Examination (OSPE)** components.

**Components, time allocation and marks given for each module examination (excluding Statistics and Integrated Human Anatomy) will be as follows;**

Components	No. of Questions	Time (minutes)	Marks (%)
MCQ	10	30	25
Essay	01	30	25
SEQ	02	30	25
OSPE	15	30	25

The **Statistics Module Examination** will consist of four Structured Essay Questions of one hours duration. This will be allocated 100 marks.

The **Integrated Human Anatomy Module Examination** will consist of the following.

Components	No. of Questions	Time (minutes)	Marks (%)
MCQ	10	30	40
SEQ	02	30	30
OSPE	20	20	30

Examinations will be conducted for each module separately.

All theory examinations will be held at the PGIM and the practical examination (i.e. OSPE/Viva) will be held in rotation at the faculties that contribute to the course.

For each module, the grades obtained will be released after each examination.

## 11. Grade Points

Grade points for each module will be calculated using the table given below.

After calculating the total marks for each module, grades for each module will be assigned using the table given below. The minimum grade a student should obtain to pass a module is a 'C'.

A student who obtains a grade below "C" for any module should repeat that module at the next available opportunity. The highest grade given to a module at any repeat examination will be a "C".

Marks Range	Grade	Grade Point
85-100	A+	4.00
80-84	A	4.00
75-79	A-	3.70
70-74	B+	3.30
65-69	B	3.00
60-64	B-	2.70
55-59	C+	2.30
50-54	C	2.00
45-49	C-	1.70
35-44	D+	1.30
25-34	D	1.00
00-24	E	0.00

The Grade Point Average (GPA) will be computed using the following formula.

$$\text{GPA} = \frac{(\text{gi}) \times (\text{wi})}{\text{e wi}}$$

Number of grade points obtained for the module	= (gi)
Number of credit units allocated to the module	= (wi)
Total number of credit units allocated to all modules	= ( e wi)

GPA will be rounded to the second decimal place.

## **12. Requirements to pass the Postgraduate Diploma in Anatomy Examination**

Candidates should obtain a minimum of “C” grade for all modules with a minimum Grade Point Average (GPA) of 2.0 to qualify for the award of the Postgraduate Diploma in Anatomy.

## **13. Repeat Examination**

Repeat examination will be held at least 6 weeks after the release of the results of the last Examination. This will include modules for which a student has obtained a grade below “C”.

The registration of a candidate will be cancelled if he/she fails to complete the Pg Dip. Anatomy Course within 8 years from the date of registration.

## Annexure 1

<b>Modules</b>	<b>Credits</b>	<b>Location for Practicals</b>
<b>1. Foundation I</b>	<b>3</b>	<b>Karapitiya, Peradeniya &amp; Colombo</b>
<b>2. Foundation II</b>	<b>3</b>	<b>Karapitiya, Peradeniya &amp; Colombo</b>
<b>3. Statistics</b>	<b>1</b>	<b>PGIM</b>
<b>4. Upper Limb</b>	<b>3</b>	<b>Ragama</b>
<b>5. Thorax</b>	<b>3</b>	<b>Ragama</b>
<b>6. Abdomen</b>	<b>4</b>	<b>Colombo</b>
<b>7. Pelvis &amp; Perineum</b>	<b>3</b>	<b>Jayewardenepura</b>
<b>8. Lower Limb</b>	<b>3</b>	<b>Ragama</b>
<b>9. Head &amp; Neck</b>	<b>4</b>	<b>Peradeniya</b>
<b>10. Neuroanatomy</b>	<b>4</b>	<b>Peradeniya</b>
<b>11. Integrated Human Anatomy</b>	<b>2</b>	<b>Peradeniya</b>

## Annexure 2

Module	Teaching/Learning Activities			Credits
	Lectures/ Interactive Lectures and Tutorials (hours)	Practicals (hours)	Assignments (hours)	
1. Foundation I	40	10	10	3.5
2. Foundation II	35	15	15	3
3. Statistics	15	--	--	1
4. Upper Limb	30	22	15	3
5. Thorax	30	22	15	3
6. Abdomen	45	22	15	4
7. Pelvis & Perineum	35	15	10	3
8. Lower Limb	30	22	15	3
9. Head & Neck	45	22	15	4
10. Neuroanatomy	45	22	15	4
11. Integrated Human Anatomy	15	30	22	2
Total	365	202	147	33.5

# Annexure 3

## **Foundation Module I**

Introduction to Anatomy  
History of Anatomy  
Human evolution  
Introduction to Human Genetics  
Early embryogenesis

## **Foundation Module II**

Anatomical nomenclature  
Methods of cadaver and tissue preparation  
Introduction to medical imaging  
Introduction to systems of the body  
Tissues of the body  
Vertebral column

## **Upper Limb**

General plan  
Bones  
Joints  
Surface anatomy  
Surface marking of important structures of the upper limb  
Pectoral region  
Scapular region  
Axilla  
Mammary gland  
Brachial plexus and its clinical importance  
Arm  
Forearm  
Hand  
Blood supply  
Innervation and dermatomes  
Lymphatic drainage  
Functional anatomy  
Development  
Radiology  
Clinical anatomy



## **Thorax**

Surface anatomy

Thoracic wall including the bony skeleton

Contents

Mediastinum

Pleural cavity & Lungs

Heart

Blood supply

Nerve supply

Histology of the thoracic organs

Lymphatic drainage

Embryology

Functional anatomy

Radiology

Clinical anatomy

## **Abdomen**

Anterior abdominal wall

Peritoneum, intraperitoneal and retroperitoneal structures

Gastro intestinal system – macroscopic & microscopic anatomy

Hepato-pancreatico biliary system

Descent of testis

Posterior abdominal wall

Development of the gastro intestinal system

Development of urinary system

Dermatomes and innervation

Blood supply

Lymphatic drainage

Radiology

Clinical anatomy

## **Pelvis & Perineum**

Osteology of the bony pelvis

Comparison between male and female pelvis

Perineum

Anal region & uro-genital region

External genitalia

Pelvis and pelvic viscera

Pelvic peritoneum

Female genital organs  
Male genital organs  
Pelvic course of ureter, bladder and urethra  
Rectum and anal canal  
Blood supply of the pelvic viscera  
Nerves of the pelvis  
Lymphatic drainage of the pelvis & perineum  
Development of the male & female genital system  
Radiological anatomy of the pelvis  
Clinical anatomy of the pelvis

### **Lower Limb**

General plan  
Bones  
Joints  
Surface anatomy & surface marking  
Gluteal region  
Thigh  
Leg  
Foot  
Innervation and the dermatomes  
Blood supply  
Lymphatic drainage  
Posture & gait  
Development & developmental anomalies  
Radiology  
Clinical anatomy  
Comparison of the lower limb with the upper limb

### **Head & Neck**

Osteology  
Face and scalp  
Neck  
Parotid region  
Temporal, infratemporal and pterygoid fossa  
Oral cavity, submandibular region and the floor of the mouth  
Eye and orbit  
Nose and paranasal sinuses

Pharynx & larynx

Ear

Development of the face & structures in the Head & Neck

Blood supply and venous drainage

Nerve supply

Lymphatic drainage

Radiology

Clinical anatomy

### **Neuroanatomy**

The functional organization of the nervous system

Development of the nervous system

Anatomy of the spinal cord & peripheral nerves

Topography, component parts, internal structure and the location of cranial nerve nuclei

Topography and component parts of the cerebrum

Topography and component parts of the cerebellum

Coverings of the brain and spinal cord

Intracranial venous sinuses

Ventricles of the brain

Formation, circulation and drainage of cerebrospinal fluid

Blood supply of the brain and the spinal cord

Venous drainage

Ascending & descending pathways

Cranial nerves, functional components and their pathways

Autonomic nervous system

Clinical anatomy of the nervous system

### **Integrated Anatomy**

Dissection of a selected area

Dissertation

Poster preparation and oral examination on selected topics in Anatomy

# Annexure 4

## Instructions regarding Assignments and Gradings

Assignments based assessments will consist as written assignments or oral assignments. The number of assignments to each module is given below.

- 1 Credit Module – 1 Written Assignment
- 2 Credit Module – 1 Written Assignment
- 3 Credit Module – 2 Assignments (1 oral of 10 mins)
- 4 Credit Module – 3 Assignments (2 orals of 10 mins)

The written assignments will be based on a selected topic from the module concerned. The assignments should be completed and submitted on or before the due date. If an assignment is not up to the standard, it may be resubmitted. Two resubmissions are permitted per module. Assignments will be marked/graded by the tutor as given below.

- A – Very Good Pass (marks over 75%)
- B – Good (marks between 60% - 74%)
- C – Pass (marks between 50% - 59%)
- D – Fail (marks between 40% - 49%)
- E – Bad Fail (marks below 40%)

Students obtaining D or E grades will be required to meet the tutors for advice and resubmit the assignments within two weeks.

# **Annexure 5**

## **Gradings for Dissections**

This will be viva based on the dissections done by the students. These will be assessed based on a structured rating schedule under categories of very good, good, fair and poor. The number of the viva/s for modules with different credits are given below.

1 Credit Module – 1

2 Credit Module – 2

3 Credit Module – 3

4 Credit Module – 4

To qualify to sit for the examination, a candidate has to obtain a fair grade or above for all modules. If a candidate obtains a “poor” grade, he/ she will have to repeat the practical section of that module.