



**POSTGRADUATE INSTITUTE OF MEDICINE -
COLOMBO**

POSTGRADUATE DIPLOMA IN SPORTS MEDICINE

PROSPECTUS

Revised Edition October 2011

POST GRADUATE INSTITUTE OF MEDICINE

**POSTGRADUATE DIPLOMA
IN
SPORTS MEDICINE**

PROSPECTUS, REGULATIONS AND TRAINING PROGRAMME

Diploma in Sports Medicine (D. Sp. Med.) (Col)

1. Introduction

1.1 The Board of Study in Sports Medicine will conduct a training programme leading to a Diploma in Sports Medicine (D. Sp. Med.) (Col.), recognized by the Sri Lanka Medical Council for registration as a postgraduate qualification. This programme is essentially a distance education course, with an emphasis on training of working Medical Practitioners, at their own place of work or hospital.

1.2 Academic Colleges both in Sri Lanka and in advanced countries such as US, UK and Australia have adopted the method of distance education, and the modular system for training programmes in many disciplines. This ensures the accessibility of the programme to doctors practising in different sectors, and enables them to follow the training programme without disrupting work in their places of employment, for long periods of time.

1.3 This is offered as a part-time programme, with 06 – 10 months of course work. It is based on a credit-based system, and on satisfactory completion of the Diploma they may proceed to the MD programme. Credits earned in this course are transferable

1.4 It is obligatory therefore on the part of the Sri Lanka Sports Medicine Association to organise the appropriate postgraduate training and examination for medical professionals in this discipline.

2. Vision

To produce a dedicated category of doctors who will have a high level competency in the field of Sports Medicine that, will enable them to provide the expert medical services and medical care necessary in Sports Medicine.

3. Objectives

3.1

- i. To produce a dedicated category of doctors who will have a high level of competency in the field of Sports Medicine.
- ii. To enable them to provide the expert medical services and medical care necessary in Sports Medicine.
- iii. To equip medical practitioners with the basic understanding of the theory and practice of Sports Medicine, so that they would function as Sports Physicians in advising sportsmen, sportswomen and athletes.
- iv. To meet the medical demands of persons involved in health related physical programmes for the purpose of rehabilitation and prevention of diseases that would lead to a healthier nation.

3.2 Outcomes - on completion of this course the participating Physician shall be able to:

- i. To advise on matters related to exercise and training that would improve and maximize performance, and also on appropriate physical and psychological strategies that need to be adopted by Team Managers and Coaches to maintain peak physical performance of athletes.
- ii. To advise on prevention of injuries, on techniques that reduce risk of injuries and on environmental factors that influence injuries.
- iii. To undertake treatment and management of injuries arising from athletic and sports activities, and to manage the rehabilitation programmes that, would make use of resources available in other institutions.
- iv. To undertake evaluation of the state of fitness levels and performance of athletes, and to identify health related factors affecting performance.
- v. To apply the same principles in the rehabilitation of chronic illnesses, disabilities, work related and age related ailments of the entire population.
- vi. To critically evaluate his or her own work and to continue updating knowledge and skills and pursue research in the disciplines of Sports Medicine.

Following is the Outline of the Trainee Selection, Course of Study and Examination leading to the Diploma in Sports Medicine.

4. Eligibility Criteria for Trainees

- i. Possession of a Medical Degree registered with the Sri Lanka Medical Council.
- ii. Completed one year of active medical practice following full registration.
- iii. Preference will be given to candidates who provide evidence of active participation in Sports Medicine activities and Sports participation. This will be assessed on a marks scheme included in the Prospectus.
- iv. If the Board is not satisfied with the qualifications submitted by the applicant, the Board may, require the applicant to undergo such assessment or carry out work as the Board may prescribe, before enrolment.
- v. Pass an entrance or screening examination conducted by the PGIM.

5. Procedure of Selection of Trainees

5.1 Candidates will be subjected to 02 selection criteria tools –

1. MCQ examination.
2. Performance based assessment of Candidates on a marks scheme allocation for participation in Sports Medicine related activities and Sports participation.

The Procedure will be as follows –

1. All candidates who at the MCQ examination get below 40 % of the raw marks will not be considered for selection to follow the course.
2. All other candidate's MCQ marks will be converted to a mark out of 60 up to one decimal point.
3. Performance based assessment – candidates will be given marks on the format given and the total marks will be converted to a mark out of 40 up to one decimal point.
4. The total mark for the candidate will be obtained by adding the calculated marks from MCQ and marks calculated from the performance based assessment on the point system given for clause 3 of the Selection criteria
5. The total marks so obtained will be arranged in descending order and the candidates will be selected on the number of vacancies available for the course, from the highest mark downwards.
6. The pass mark is 50.0 % of the total aggregate, of the candidates who get 40% and over in the MCQ component. An aggregate mark of 49.9 % will fail.

7. However if the number of candidates who qualify are less than half the number to be admitted, marks will be standardized.
(The standardization procedure as adopted by the PGIM will be followed.)
8. If there are more than one candidate with the same total marks for the last place, those candidates will be admitted to the course.

5.2 The Screening MCQ Examination will carry 60 % of the final marks –

The MCQ will be on basic Health Science, aspects of applied Anatomy and Physiology and basic principles in Sports Medicine.

The screening MCQ test paper will be as follows –

- 40 questions each question 5 responses (total of 200 responses.)
- True – False type MCQ.
- Negative points for wrong answers with no negative carry over.
- Duration 2 hours.
- Eligibility for selection 40% of the MCQ paper.
(80 marks and above out of 200 marks.)

5.3 The Scheme of marks for Sports Medicine related activities and Sports participation, where evidence is provided.

(Marks that count, towards eligibility for the Diploma course are given below –
this segment will carry 40% of the final marks.)

1. **Attendance at Certified International Federation of Sports Medicine Courses–**
Team Physician Development Courses (FIMS TPDC), other Sports Medicine courses, Seminars and Sessions attended locally or abroad and certified by the Sri Lanka Sports Medicine Association (SLSMA)
– 4 marks each (max. 8 marks)
2. **Sports Medicine related Papers presented** – approved by SLSMA
- Oral Presentations - 2 marks each (max. 4 marks)
- Publications – 4 marks each (max. 8 marks)
3. **Active Participation in Sports Medicine Programs in Schools, Hospitals, Clubs and Sports Federations** – Each activity over 2 hours
– 2 marks each (max. 8 marks)
4. **Role as a Resource Person in a recognized Sports Medicine Course** –
– 5 marks each (max. 10 marks)
5. **Elective training in Sports Medicine** under SLSMA approved Teachers
– 5 marks each (max. 10 marks)
6. **Attendance at recognized Sports events as a Sports Physician -**
National / International events - 3 marks each (max. 6 marks)
Provincial or District events - 2 marks each (max. 4 marks)
Club or School events - 1 mark each (max. 2 marks)
(Total max. of 12 marks)
7. **Sports Medicine distance learning courses** – - 4 marks each (max. 8 marks)

8. Research projects in Sports Medicine (unpublished) –
Full paper to be submitted - **4 marks each (max. 12 marks)**

9. Sports Performance

1st, 2nd & 3rd position at school level - **1 mark each (max. 2 marks)**
School colours/University Colours/Faculty Colours - **2 marks each (max. 4 marks)**
1st, 2nd & 3rd position in Provincial or District events - **3 marks each (max. 6 marks)**
National or International events - **4 marks each (max. 8 marks)**

The maximum total of 100 marks in this segment will count as 40 %

6. Course Design

Training will be in the form of lecture demonstrations, workshops, clinical sessions, field work, distance education modules, internet use and the use of video CDs /Cassettes. The curriculum is designed and administered as 05 course modules, which will cover the following subjects.

6.1 COURSE MODULES

A. Introduction to Sports Injuries, Prevention and Rehabilitation

- Introduction to Sports Injuries – Muscle injuries
- Head injuries
- Neck injuries
- Spine injuries
- Hip and Pelvis injuries
- Knee injuries
- Lower Leg injuries
- Ankle and Foot injuries
- Shoulder injuries
- Elbow and Forearm injuries
- Wrist and Hand injuries
- Facial and Dental injuries
- Eye injuries
- Principles in the Prevention of Sports injuries
- Principles in Rehabilitation

B. Introduction to Sports Medicine and Health Science

- Biomechanics of Human movement and Functional anatomy
- Principles of Training
- Exercise Physiology and Metabolism
- Sports Nutrition for Health and Performance
- Ergogenic Aids in Sports.
- Drugs, Testing and Ethics in Sport

C. Medical Aspects of Exercise and Sports.

- General Health considerations in Exercise and Sport
- Pre Participation medical examination.
- Emergency Sports Medicine – Field side assessment
- Sports Medicine in Cardiology – sudden death
- Sports Medicine in Pulmonary conditions – Asthma
- Sports Medicine in Rheumatology
- Growth, Exercise and Hormones.
- Sports Medicine in Endocrinology – Diabetes.
- Sports Medicine in other medical conditions – Renal, Skin etc.
- Role of Genetics in Sports and Gender verification
- Special Groups – Children and Adolescents in Sports
- Special Groups – Women Athletes
- Special Groups – Masters and Seniors athletes
- Special Groups – Elderly/ Ageing population
- Special Groups – Physically challenged

D. Practical Sports Medicine

- Team Physician Role and Functions
- Field side assessment and Triage
- Travel Sports Medicine, Hygiene and Immunization
- Sports Psychology
- Environmental conditions and Sports medicine
- Establishment of a Sports Medicine Centre
- Exercise prescription and Structure of Elite Training

E. Research Methods

- Basic components of a Research process
- Performing a Literature search
- Basic Statistical analysis

6.2 PRACTICAL SESSIONS.

1. CLINICAL SESSIONS

- Accident, Trauma and ICU
- Cardiology
- Dermatology
- Dental & Maxillo-Facial and ENT
- Emergency Medical – ICU & General Medicine
- General Surgery and SICU
- Neurology
- Orthopaedics
- Ophthalmology
- Obstetrics and Gynaecology
- Psychological Medicine
- Paediatrics
- Radiology
- Rheumatology & Physiotherapy

2. PRACTICAL WORKSHOPS

- CPR and Transport of Unconscious Patient
- Joint Aspirations, intra-articular injections
- ECG - Stress, Treadmill, ECHO.
- Physiotherapy / Massage
- Rehabilitation Therapy
- Splinting, Orthotics
- Strapping & Bracing
- Work Physiology, Aerobic Testing, Treadmill testing, Lung Function etc.
- Gym Training and Exercise Sessions

3. SPORTS MEDICINE RELATED ACTIVITIES - 02 hours each session.

- i. Attendance at Sporting Events
- ii. Team Training Sessions
- iii. Sports Injury Treatment Clinics

5. MAINTENANCE OF CASE BOOK

Minimum of 05 cases on Sports Injuries, related illnesses, or related health problems and the management, under supervision of a Faculty member.

6. MAINTENANCE of the PORTFOLIO – Progress Evaluation

- i. This will be maintained in the prescribed manner for which instructions are given separately in the Portfolio document.
- ii. The portfolio will constitute the formal evaluation of the Trainees performance during the training programme.
- iii. The portfolio will be evaluated and given a grading. A pass grade is necessary to proceed to the Diploma examination.
- iv. The completed portfolio should be submitted as a ring binder document to PGIM 04 weeks prior to the examination date.

7. ATTACHMENT TO A SPORTS BODY / ASSOCIATION.

Should be involved and participate in some aspects of Coaching and Training.

NB`

- The Clinical Sessions will be held under the supervision of approved Consultants in designated hospitals in Sri Lanka.
- The workshops and practical sessions will be under the supervision of approved Consultants.
- The Practical Sports Sessions will be monitored by designated Supervisors.
- Attendance at Sports Medicine Clinics will be in approved Institutions.

7. Teaching Faculty

- Consultants from National Teaching hospitals, University - Faculty of Medicine Lecturers and University Health Science Lecturers approved by PGIM.
- Accredited Lecturers in Sports Medicine recommended by the Education Commission of Sri Lanka Sports Medicine Association and approved by PGIM.
- External / Foreign Lecturers who are experts, recommended by SLSMA and approved by PGIM.

8. Teaching Methods

- Teaching format consists of Lectures, Distance education modules, Tutorials, Clinical sessions and demonstrations, Workshops and Field practical sessions.
- Instructors will choose the right mix of course materials and teaching methods for the best teaching result – may use videos and CDs.
- Maintenance of log book and attendance at sports events.

9. Time Schedule of Instruction

- On average two 3 hour lecture sessions on Saturday and Sunday will be held in the PGIM lecture theatre.
- Clinical sessions and workshops will be held on Fridays and Saturdays by arrangement with Consultants.
- The total contact time includes 6 lecture hours per week of 14 – 15 weeks, clinical sessions of 4 hours per week on separate 15 weeks.
- Field experience at convenience of candidates over week ends. Lectures and clinical sessions will be interspersed.

10. Examination for the Diploma in Sports Medicine

10.1 Eligibility to Sit the Examination.

1. Satisfactory completion of the Course of Study leading to the Diploma in Sports Medicine as laid down in the prospectus, with the completion of a minimum of 80% of lectures and 90% of clinical sessions, workshops and practical sessions. Attendance must be certified by the designated/assigned supervisors.
2. Completed the Portfolio and submitted to the PGIM 04 weeks before the date of the examination and **a pass grading obtained** in its assessment.
3. Completed and documented Case Book of at least 05 case studies must submitted to PGIM 08 weeks before the date of examination.

10.2 The Examination

1. **Formative assessment** – this will be by the Portfolio assessment.
2. **Summative assessment** – this aspect will consist of 3 components –
 - i. Written component
 - ii. Clinical component
 - iii Oral component.
 - 2.1 The written component will consist of 2 papers
 - i. MCQ paper.
 - ii. Short Essay paper
 - 2.2 The Clinical component will consist of –
 - i. Clinical Examination of 02 short cases.
 - ii. Discussion with 2 examiners who will observe the consultations.
 - 2.3 The Oral examination will be by 2 examiners
 - i. This will also include interpretation of X rays and Scans of standard conditions.
 - ii. Discussion of cases in the Case Book

10.3 Examination Format

This will be as follows:

Written part

- | | |
|--|----------|
| i. Multiple Choice Question Paper
20 questions, 100 responses | 01 hour |
| ii. Short Essay Answer Questions
06 questions that need short answers | 03 hours |

Clinical Part

- | | |
|--|----------|
| i. Clinical evaluation and discussion of the management of 2 cases
in the presence of 2 examiners
(30 mins. per case) | 60 mins. |
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Oral Examination

20 mins

Oral examination will also include a discussion based on the Case Book and interpretation of X rays and Scans of standard conditions.

10.4 Number of Attempts

- In the case of a candidate who has not obtained the pass grade from the portfolio, he or she will not be eligible to sit the examination until he or she achieves a pass grade in the portfolio.
- Failed candidates would be allowed a maximum of 05 further attempts which allows a total of 06 attempts at the final examination within a period of eight years from the date of first attempt
- The candidates who sit for the subsequent examinations will not be expected to submit a new portfolio or a case book. They must sit for the entire examination, which includes the written, clinicals and oral components of the final examination.
- Those who fail all 06 attempts at the final examination will not be permitted to sit for any further screening examinations to re-enter the Diploma in Sports Medicine course.

11. Evaluation

- The overall pass mark will be 50 % for the entire examination, which will be an aggregate of the marks of all the components.
- A candidate will have to obtain a minimum of 50% in each of the components of the examination viz. Written, Clinical and Oral.
- He will be considered as failed if he does not obtain 50% in each component, even though his aggregate mark for the whole examination is 50% or over.

12. Award of Medal

A medal would be awarded to the best candidate at the Diploma examination, on the recommendation of the Board of Examiners of the PGIM.

The following conditions would apply –

- i. The candidate has passed the examination, in the first attempt.
- ii. The candidate has obtained an aggregate mark of 65.0% or over.
- iii. The candidate has obtained the highest mark of all the candidates.
- iv. The candidate has obtained a minimum 60% in each of the written, clinical and oral components of the examination.
- v. In the event of a tie, the marks in the clinical component will be taken into consideration.

13. Award of the Diploma

Award of the Diploma in Sports Medicine will be on the satisfactory completion of the appropriate periods of training as given in the Prospectus, and the successful completion of the Examination.

14. Recommended Texts for Reference

- | | | |
|--|---|---------------------------|
| a) Clinical Sports Medicine | - | P. Bruckner and Kahn |
| b) FIMS Team Physician Manual. | - | FIMS publication. |
| c) Exercise Physiology | - | Mc Ardle, Katch and Katch |
| d) Colour Atlas of Orthopaedic Anatomy | - | Frank H. Netter |

(Additional texts recommended to this list.)

15. Concise Syllabus

The concise syllabus is included, to act as a guide to those proposing to present themselves as candidates for the Diploma in Sports Medicine.

- a) Applied Anatomy and Bio Mechanics
- b) Physiology of Exercise
- c) Sports Nutrition
- d) Psychological aspects of Sports Medicine
- e) Environmental conditions and exercise
- f) Female Athlete
- g) Child and Adolescent athlete

- h) Effects of Training
- i) Effects of Exercise in particular groups of people
- j) Sports Injuries – Musculo Skeletal injuries
- k) Emergency Care and Fieldside assessment of injuries
- l) Infection and Hygiene in Sports
- m) Role of Team Doctor
- n) Pre participation medical examination
- o) Sports Pharmacology and Doping
- p) Organization and Administration of Medical Cover in Sports Events

16. Clinical Requirements and Clinical Skills to be acquired

- a) Adequate history taking. Clinical muscular skeletal evaluation and provisional diagnosis of sports injuries.
- b) Interpretation of X-rays, CT Scans, MRI Scans, Ultrasound and Isotope scans of common sports injuries, ECG interpretations.
- c) Interpretation of blood sample analysis including Serum Iron studies, Hormonal assays and interpretation of Respiratory Function tests.
- d) Treatment of sports injuries including physiotherapy modalities, intra- articular injections, aspirations and indications for Surgical referral.
- e) Basic knowledge of Bio mechanics of common sports, training principles and exercise prescriptions.
- f) Nutrition and Dietary analysis and advice. Fluid and Electrolyte balance.

17. Duty Leave

It is requested that the candidates from the Department of Health be given 12 days of duty leave, approximately one day in each month for them to attend clinical sessions with the designated consultants.