

Hong Kong College of Community Medicine

Training and Examination Guidelines for the Subspecialty of Occupational and Environmental Medicine

(Revised December 2019)

SECTION Definition of Discipline and Training Objectives

A. Definition

1. Occupational and Environmental Medicine is a sub-specialty of Community Medicine, which aims to promote and maintain the highest degree of physical, mental and social well-being of workers in all occupations. This can be accomplished through the prevention of hazards to health caused by working conditions, the protection from risks resulting from other factors adverse to health in their employment, and the placing and maintenance of the worker in an occupational environment adapted to his physiological and psychological ability. In this sub-specialty, knowledge and skills of occupational hygiene, toxicology, epidemiology, clinical medicine, public health and management are applied together to achieve the ultimate goal of promoting the health of workers and that of the population at large.

2. In this document, the “College” refers to the Hong Kong College of Community Medicine; the “Guidelines” refers to the *Training and Examination Guidelines for the subspecialty of Occupational and Environmental Medicine*; the “Log Book” refers to the *Occupational and Environmental Medicine Log Book For Higher Specialist Training* stipulated by the College.

B. Training objectives

3. The objectives of the training programme in Occupational and Environmental Medicine are to produce medical specialists who are able to:-

- (a) diagnose, prevent and reduce the impact of injuries and illness due to hazards at work;
- (b) promote the health of people at work;
- (c) be an effective manager of occupational health and safety services;
- (d) give expert advice on the effects of the environment on human health;
- (e) contribute to the advancement of knowledge in the discipline of occupational health;
- (f) maintain expertise which is both current and relevant; and
- (g) adhere to medical and scientific ethics.

4. The training shall be 6-year, full-time, structured, supervised and divided into Basic Specialist Training and Higher Specialist Training.

SECTION II Entry requirements and procedures

A. Entry requirements

1. For entry to Basic Specialist Training, the candidate must:-
 - (a) be a medical practitioner registrable in Hong Kong; and
 - (b) be accepted by the College as a trainee for Basic Specialist Training and is so registered.

2. For entry to Higher Specialist Training, the candidate must:-
 - (a) be a medical practitioner registrable in Hong Kong;
 - (b) have passed the Part I Fellowship Examination;
 - (c) have satisfied the College that he/she has completed the requirements of Basic Specialist Training; and
 - (d) be accepted by the College as a trainee for Higher Specialist Training and is so registered.

B. Requirement for admission as a Fellow of the College

3. The candidate must:-
 - (a) have satisfied all the training requirements and assessments as defined by the Academy; and
 - (b) have completed 6 years of training recognised by the College and have passed all the prescribed assessments of the College, including the exit assessment.

SECTION III Basic Specialist Training

1. Training shall be recognised only if it has been approved by the College. The period of training shall be at least 3 years, of which at least 18 months must be in a clinical training unit recognised by one of the Colleges of the Hong Kong Academy of Medicine.

2. As a general guidance, clinical training refers to the training of practice of medicine involving direct patient care.

3. A trainee who takes leave for more than 14 weeks within any consecutive 12 months has a duty to report such interruption of training to his/her trainer. The trainer will then assess whether extension of training period is required for the achievement of training objectives, and make a recommendation to the respective Subspecialty Board for decision.

A. Training Institution

4. Training posts must exist in recognised Training Institutions. A recognised Training Institution must:-
 - (a) be one which provides a wide range of clinical or occupational health services (e.g. Hospital Authority, Department of Health, Labour Department or any medical institution recognised by the College to have a scope of clinical or occupational health services comparable to that of Hospital Authority, Department of Health or Labour Department);
 - (b) be inspected and recognised by the College for the purpose of training in

Occupational and Environmental Medicine, and training institutions shall be inspected every 3 years;

- (c) have sufficient full-time trainers recognised by the College; and
- (d) be in agreement with the principles and protocols of training as defined by the College, and be subjected to audit by the College as to the quality of supervision and training from time to time.

B. Trainer

5. A Trainer must be:

- (a) a Fellow of Hong Kong Academy of Medicine in the subspecialty of Occupational and Environmental Medicine, or senior medical doctors recognised by the College to have equivalent standing; and
- (b) formally appointed by the College, and agree to abide by the principles and protocols of training as defined by the College.

6. A Trainer must agree to be responsible for guiding and supervising the trainee throughout the training period.

C. Trainee to Trainer Ratio

7. The Trainee to Trainer Ratio should be no more than 3 : 1 for Basic Specialist Training.

D. Training Content

8. The training content may change from time to time as technology advances. It consists of the following:-

Supervised clinical or occupational health experience; principles and practice of Occupational and Environmental Medicine and occupational health; ergonomics; safety in the workplace; occupational rehabilitation; management issues in occupational health; legal aspects and ethics in occupational health practice; epidemiology and biostatistics; research and evaluation methods.

E. Audit of Training

9. Trainees are required to keep a log of their training and must present to and discuss with their trainers in all aspects of their training. Trainers must evaluate the quality of experience and report to the College at 6-month intervals on the progress of training. Reports should include comments on whether the progress is satisfactory, whether there is any deficiency in the training, and if so, whether remedial action is required. The College Education Committee will decide whether a training period should be validated after reviewing the trainer's report

F. Basic Specialist Training for Fellows from Other Constituent Colleges of Hong Kong Academy of Medicine

10. Fellows from other constituent Colleges of the Hong Kong Academy of Medicine shall be recognised for the supervised clinical experience component of Basic Specialist Training for Occupational and Environmental Medicine. However, the candidates must have passed the Part I Fellowship Examination in Occupational and Environmental Medicine and satisfy the 3-year minimum training period of Basic Specialist Training before they can be admitted as a Higher Specialist Trainee.

SECTION IV Higher Specialist Training

1. The period of Higher Specialist Training shall be at least 3 years, and must take place in a training institution recognized by the College for such purpose.

Besides satisfying the requirements as stated in Section II (1), a trainee shall only proceed to Higher Specialist Training after he/she:-

- (a) has served for at least 18 months in a clinical training unit recognized by one of the Colleges of the Hong Kong Academy of Medicine;
- (b) has completed the Basic Specialist Training recognized by the College;
- (c) has passed all of the Part I Fellowship Examination in Occupational and Environmental Medicine;
- (d) has satisfied the College of all other requirements of Basic Specialist Training; and has been registered as a trainee for Higher Specialist Training; and
- (e) has paid the necessary fees and dues.

2. A trainee who takes leave for more than 14 weeks within any consecutive 12 months has a duty to report such interruption of training to his/her trainer. The trainer will then assess whether extension of training period is required for the achievement of training objectives, and make a recommendation to the respective Subspecialty Board for decision.

A. Training institution

3. An accredited training unit should be one which has the facilities and commitment for training in Occupational and Environmental Medicine. In particular, they should:-

- (a) have the ability and establishment to comprehensively administer occupational health care in all aspects;
- (b) establish a training structure for Occupational and Environmental Medicine in accordance with the College's requirements; and
- (c) organize sufficient academic and training activities in co-operation with the College.

B. Trainers

4. A Trainer must be:-

- (a) a Fellow of Hong Kong Academy of Medicine in the subspecialty of Occupational and Environmental Medicine, or senior medical doctors recognised by the College to have equivalent standing; and
- (b) formally appointed by the College, and agree to abide by the principles and protocols of training as defined by the College.

5. A Trainer must agree to be responsible for guiding and supervising the trainee throughout the training period. The trainer of Higher Specialist Trainees can be a trainer of Basic Specialist Trainees at the same time.

C. Trainee to Trainer Ratio

6. The Trainee to Trainer ratio should be no more than 2:1 for the Higher Specialist Training.

D. Training Content

7. The training content may change from time to time as technology advances. A trainee for Higher Specialist Training should acquire core competence as defined in the training objectives as stated in Section I (3). The workload of trainee must be directed towards achievement of these core competencies. The training institution and trainer shall assist trainee in defining this workload and to evaluate the output of his work in terms of the objectives to be achieved. The trainee must satisfy the College that he has sufficient understanding and experience of the following subjects after training:

- (a) Clinical Competencies - Able to apply the skills of a medical practitioner in order to diagnose, assess and advise on the management of disease and injury in relation to occupation, and determine the relationship between health and fitness to work, and advise on the impact of major contemporary health issues in a workplace.
- (b) Workplace Assessments - Able to conduct workplace and preliminary environmental assessments in order to recognize, evaluate and control physical, chemical, biological, design and psychosocial hazards in the workplace.
- (c) Critical Appraisal of Occupational Health & Safety Information - Able to retrieve and critically appraise occupational health and safety information, and disseminate such information in readily understandable forms.
- (d) Teaching and Research - Able to design, conduct and interpret investigations of health problems of individuals and groups and design, implement and evaluate prevention strategies in the workplace. Able to teach the principles and practice of Occupational and Environmental Medicine to trainees in Community Medicine.
- (e) Management - Able to apply management skills in order to manage and co-ordinate occupational health and safety services including health surveillance programmes, implement effective change in the workplace, and negotiate and resolve conflict relating to occupational health and safety issues.
- (f) Communication - Able to communicate effectively in order to secure the co-operation of management, employees, and colleagues in the provision of a safe and healthy workplace.
- (g) Legislation, regulation and medico-legal matters - Able to interpret the legislative, regulatory and medico-legal aspects of occupational health and safety and be able to apply these in practice.
- (h) Rehabilitation - Able to manage a rehabilitation programme.
- (i) The Environment - Able to advise on the effects on humans of external physical, chemical, biologic, psychosocial and mechanical factors in the general environment; and to deal with major public health issues in Hong Kong.
- (j) Continual Education - Able to continue learning in order to respond to changes in the workplace and occupational health and safety knowledge.

8. Details of the core competencies required by the College are stipulated in the Log Book.

E. Training Requirements

Credit points system

9. To facilitate assessment of the quality of experience in the training period, each trainee must accumulate a number of credit points during the Higher Specialist Training period. The credit points to be attributed to various activities will be determined by the College.

Review meetings

10. Trainees must attend and make presentations in review meetings. The required number of attendance and presentations in meetings will be determined by the College.

Log Book

11. Trainees shall be required to keep a Log Book containing the following:-

- (a) a history of the workload, responsibilities, management of clinical projects and patients, major participation and specified tasks relating to Occupational and Environmental Medicine during the training period
- (b) postgraduate courses / formal training sessions / conferences attended during training
- (c) academic or professional qualifications acquired
- (d) publications recognised by the College for training purpose
- (e) assistance in the training and supervision of junior trainees
- (f) comments, if any, from trainer or training institutions
- (g) credit points obtained
- (h) attendance and presentations at review meetings
- (i) other information relevant to training

12. Appendix I sets out the details of Higher Specialist Training.

SECTION V Fellowship Examinations

1. The Fellowship Examination will be in three parts: Part I, Part II and Exit. A pass in Part I must be obtained before entry to Part II and a pass in Part II must be obtained before being allowed to take the Exit examination.
2. After passing the Part I and Part II Fellowship Examination and fulfilling the 6 years' training requirements, trainees are eligible to sit for the Exit Examination. Upon passing the Exit Examination, trainees are eligible for election to Fellowship of the College (FHKCCM) and for recommendation by the College to the Hong Kong Academy of Medicine to be a Fellow of the Academy (FHKAM) in Community Medicine.

A. Part I Examination

3. The Part I Examination will examine candidates on the knowledge and skills that are required, to enable them to become Higher Specialist Trainees in Occupational and Environmental Medicine.
4. A candidate for the Part I Examination:-
 - (a) must be a registered Basic Specialist Trainee in the subspecialty of Occupational and Environmental Medicine; and
 - (b) will normally sit for the examination after completion of 3 years of Basic Specialist Training, but may apply to sit the examinations earlier under exceptional circumstances that are acceptable to the College.

B. Part II Examination

5. The Part II Examination is designed to examine the competencies of the candidates through application of the relevant knowledge, skills and attitudes to the practice of Occupational and Environmental Medicine in Hong Kong. The Examination takes the form of a written examination and a practical examination.
6. To be eligible for the Part II Fellowship examination, a candidate must:-
 - (a) have passed the Part I Fellowship Examination;
 - (b) be a registered Higher Specialist Trainee in Occupational and Environmental Medicine; and
 - (c) have completed 3 years of Higher Specialist Training.

C. Exit Examination

7. To be eligible for the Exit Fellowship examination, a candidate must:-
 - (a) have passed the Part II Fellowship Examination; and
 - (b) have satisfied all the other criteria for sitting Exit Examination as described in Appendix I.
8. Doctors who have worked outside Hong Kong, and have completed six years of supervised medical training and obtained recognized overseas qualifications deemed to be equivalent to

FHKCCM Part II Examination, may apply for the Exit Examination after they have gained at least one-year post-qualification local work experience in an accredited training institution. Their eligibility will be assessed on an individual basis. A list of recognized overseas qualifications and their minimum post-qualification training periods can be found at the College website.

9. Appendix II sets out the detailed Procedures and Regulations of Fellowship Examinations.

Enquiries

All enquiries related to this Guidelines should be directed to the Chief Censor of College at the following address:

Chief Censor
Hong Kong College of Community Medicine
Room 908, 9/F, HKAMJC Building
99 Wong Chuk Hang Road
Aberdeen, Hong Kong

Appendix I

Details on Higher Specialist Training

A. Structure of training

1. Trainees should have completed an approved academic programme in Occupational and Environmental Medicine and passed the Part I Examination. They should be employed and supervised in Occupational and Environmental Medicine, and comply with the regulations set out in this document.
2. Trainees are required to be exposed to the clinical practice, administrative, service, teaching and research components of Occupational and Environmental Medicine during the period of training.
3. It is the responsibility of trainees to complete the six monthly reports and send them to the Education Committee of the College.
4. In accordance with recommendations made by the Education Committee of the Hong Kong Academy of Medicine, teaching and research would be an integral part of the training of specialist. Training programmes should be designed so that trainees are exposed to adequate aspects of both service and academic activities.
5. Evaluation of in-service work should be continuous, and the content of training should be kept under regular review. Successful completion of the Part I and Part II Fellowship examination is only one aspect of this assessment of competence. The monitoring of performance in service work is equally important.

B. Coordination

6. The responsibility for the training programmes rests with each recognised training institution. A Training Coordinator should be appointed for each recognised training institution. The responsibilities of the Training Coordinator are to organise review meetings, monitor the activities of the trainees, and be the contact person for the Education Committee of the College.
7. The College will appoint a Program Director in Occupational and Environmental Medicine to liaise with the Training Institutions and provide advice to the trainees on their placement in the training programmes, their training progress and career pursuit to ensure the quality and standards of training.

C. Training policies

8. Each training institution should have a written training policy approved by the College. This will include arrangements for academic and service supervision, provision for trainer development, facilities expected in a training location, induction programmes for new trainees, requirements for learning frameworks (contracts), opportunities for external attachments, arrangements for rotation between training units, study leave and performance assessment and review processes.

D. Experiential time determination

9. The credit points system helps to determine the *quality* of time in training. The nature of the job determines not only *quality* but also *quantity* of time allowable as *Occupational and Environmental Medicine*.

Full-time salaried posts

10. Training post will have to be approved by the Education Committee of the College. Most full-time salaried posts in industry and government in occupational / industrial health / medicine are regarded as full-time experience.

11. The following posts are not necessarily recognized training posts in Occupational and Environmental Medicine. Accreditation will require individual assessment by the Education Committee:-

- (a) Armed Services;
- (b) Rehabilitation services and practice;
- (c) Pre-employment and superannuation services;
- (d) Compensation medicine;
- (e) Industrial injury clinic practice;
- (f) General Practice targeted at -
 - industrial medicine
 - compensation
 - superannuation / pre-employment examinations
 - stress management
- (g) Full-time students on an approved course;
- (h) Sports injury medicine;
- (i) Public health posts.

Part-time Occupational and Environmental Medicine practice

12. Any Trainee who is practising in another specialty or field such as family medicine, rehabilitation, general medicine or medical administration cannot be said to be full-time in Occupational and Environmental Medicine. To achieve three (3) years full-time equivalent experience in Occupational and Environmental Medicine, a trainee will have to spend:-

- (a) 3.6 years at 30 hours per week of work related to Occupational and Environmental Medicine
- (b) 5.4 years at 20 hours per week of work related to Occupational and Environmental Medicine

E. Credit points system

13. To facilitate assessment of the quality of experience in the training period, each trainee must accumulate a minimum of 100 credit points during the Higher Specialist Training period. The credit points to be attributed to various activities are as follows:-

(a) Postgraduate courses

(Completion of courses approved by the College, to be appropriate for training) per 3 hours

Credit Points

1

| | |
|---|----|
| (b) Attendance at scientific meetings, conferences, seminars and workshops approved by the College | |
| per meeting (a minimum of 2 days) | 10 |
| per full day | 6 |
| per 1/2 day session | 3 |
| per hour | 1 |
| | |
| (c) Presentations in approved scientific meetings, conferences and seminars | |
| Oral presentation | 10 |
| Poster presentation | 5 |
| | |
| (d) Scientific publications | |
| Refereed paper in an approved journal | 10 |
| Non-refereed paper acceptable to the College in an approved journal | 5 |
| | |
| (e) Active involvement in College Committee | |
| (With written documentation) per year | 10 |

14. No points will be awarded for the gaining of the pre-requisite academic qualifications or coursework. Any additional course undertaken may contribute to extra credit points.

15. No points are awarded for attending the compulsory review meetings. Points can be counted for the review meetings attended in excess to the minimum requirement.

16. On attending these training activities, trainees should:-

- (a) enter dates and details on the record sheet provided;
- (b) enter points claimed;
- (c) have the trainer check and initial individual record in the Log Book afterwards.

F. Review meetings

17. Regular review meetings will be organised by the Training Co-ordinator of Training Institution participating in training. All trainees will be required to attend a minimum of four review meetings per year, held at regular intervals. Each trainee will be required to present material twice for each year of supervised training, i.e. a total of six presentations. The trainee is responsible for contacting the Training Co-ordinator to arrange the individual presentations.

18. The review meetings will be in addition to the regular training and continuing education sessions and form part of the criteria for sitting the Exit Examination.

19. Each review meeting must be chaired by the Training Co-ordinator or his designated representative. It is highly desirable for trainers to attend some of the meetings, particularly those at which the trainees for whom they are responsible are presenting.
20. The activities in these review meetings may include: -
- a) the presentation of 'cases studies' or inspections by both trainers and trainees;
 - b) constructive critical discussion and feedback of training activities;
 - c) review of Log Books;
 - d) review/discussion of reports; and
 - e) review of old examination questions.
21. The sessions will be approximately one to one and a half hours in length. Depending on other activities, it is expected that two or three 'cases' would be presented at each meeting. 'Cases' may be observations, clinical problems, preventive programs, industrial relations issues, research questions, presentations in response to given questions, or presentations concerning problems in the workplace which correspond to matters described in the competency document.
22. Presentations may be about 15 to 20 minutes in length, followed by discussion and feedback depending on the nature of the case.
23. Written summaries of a trainee's presentations are required to be placed in the Log Books.
24. A record sheet will be provided at each meeting to record attendance and presenters. These sheets will be sent to the Chief Censor of the College by the Training Co-ordinator at the completion of each meeting, to be added to trainee records and provide a record of the fulfillment of training requirements.
25. It is the responsibility of the trainees to ensure that they have met the requirements concerning attendance and presentation.

G. Log Book requirements

26. The following items should be included in the Log Book. which shall be compiled in a way that is appropriate to the trainees' work routine and should be added to the Log Book in the course of training:-
- (a) Curriculum vitae;
 - (b) Details of employment during traineeship;
 - (c) Details of relevant experience in occupational and environmental medicine prior to traineeship;
 - (d) Details of further courses/ training sessions/ conferences attended during traineeship;
 - (e) Details of any other academic or professional qualifications obtained during traineeship;
 - (f) Details of any publications produced during traineeship;
 - (g) Detailed examples of cases seen during traineeship (*occupational injuries, occupational diseases, rehabilitation, work capacity assessment, medico-legal cases etc.*);
 - (h) Details of worksite visits performed during traineeship;
 - (i) Examples of involvement in policies/ procedures/ guideline development for organisations with details of the trainee's specific input;

- (j) Details of any teaching or involvement in course development for occupational health;
- (k) Summaries of presentations made at review meetings;
- (l) Details of any sessions held with the trainer during traineeship;
- (m) Section for inclusion of other miscellaneous occupational health activities not included in the above sections; and
- (n) Copies of records of credit points gained during the training programme

27. If a Higher Specialist Trainee fails an exam, s/he is required to continue keeping the Log Book and submit an updated version before sitting for the next examination.

Appendix II

Procedures and Regulations, for Fellowship Examinations

A. Objectives

1. The objectives of the fellowship examination are to ensure that trainees in Community Medicine have the necessary knowledge and skills to practice as specialists in Community Medicine in general, and in Occupational and Environmental Medicine in particular.

B. Examination Regulations

2. Application and entry requirements

- (a) Each candidate must apply to be admitted to Part I, Part II and Exit examination separately;
- (b) Application for entry to an examination must be made on the prescribed forms obtainable from the College office; and
- (c) Application forms accompanied by the requisite fee and any other documents required must reach the College Secretariat not later than the published closing date.

3. Examination fees

- (a) A separate fee is payable for each attempt at each part of the examination;
- (b) Fees must be paid in full by the published closing date for entry to that part of the examination. A fee is required for consideration of any application for exemption from all or part of the Fellowship Examination; and
- (c) The level of fees will be determined by the Education Committee.

4. Withdrawals

- (a) Any candidate who withdraws from any part of the Fellowship Examination must give notice in writing to the Education Committee;
- (b) A candidate who withdraws after starting any part of the Fellowship Examination is considered to have made an attempt at that part; and
- (c) If the candidate is forced to withdraw from an examination for any reason beyond his or her control, the candidate may apply to the Education Committee for special consideration of his or her case.

5. Entry procedures

Applicants for entry to any part of the examination must be made on the appropriate forms. Details of entry procedures together with the examination calendar which gives closing dates for entry to each part of the examination, as well as dates when examinations will be held, are available from the College.

6. Number of Attempts

Candidates will ordinarily be allowed no more than four attempts at either part of the Fellowship examination except at the discretion of the Education Committee. Permission to exceed four attempts will be granted only if the candidate's record shows that he or she is likely to succeed at a subsequent attempt.

C. Additional regulations for Part II Fellowship Examination

7. To be eligible to sit for the Part II examination a candidate must:-

- (a) have had at least six (6) years of supervised medical training after internship of which four (4) years full-time (or *its equivalent*) should be in Occupational and Environmental Medicine;
- (b) have successfully completed an approved post-graduate course in Occupational and Environmental Medicine;
- (c) have participated in a supervised Higher Specialist Training Programme of the College in Occupational and Environmental Medicine for at least three (3) years and completed the six monthly progress reports;
- (d) have accumulated a minimum of 100 credit points during the supervised training period by attending meetings and conferences, and/or presentation or publication of scientific papers;
- (e) have attended a minimum of four review meetings per year and made a presentation in at least two (2) of these meetings per year during the three years of Higher Specialist Training; and
- (f) have kept a Log Book which documents experience during the four (4) years credited as Occupational and Environmental Medicine experience. This will include the Higher Specialist Training Programme of the College.

8. Candidates are generally expected to sit for the Part II Examination upon the expiry of the 3-year Higher Specialist Training. Candidates may apply to the Occupational and Environmental Medicine Subspecialty Board with supporting grounds for extension of traineeship to take the Part II Examination on a yearly basis up to a maximum of 3 years. During the three-year extension period, the candidate should have at least one attempt of the Part II Examination. Should the candidate fail in the examination, he/ she will be required to re-attempt the examination in the following year. This applies to the subsequent attempts of the examination, subject to a total of four attempts.

9. If a candidate does not sit for the Part II Examination during the 3 years extension period, his/ her traineeship will be terminated. In this circumstance, the candidate will have to take the Part I Examination again should he/ she want to pursue the HKCCM Fellowship in future.

D. Details of Part I, Part II and Exit Fellowship Examination

D-1 Examination format

Part I Examination

10. Part I is a written examination designed to test the candidate's knowledge and understanding of the scientific basis of Occupational and Environmental Medicine, as well as knowledge pertinent to the practice of Occupational and Environmental Medicine in Hong Kong.

Part II Examination

11. Part II is designed to test whether the candidate is competent to practice as a specialist in Occupational and Environmental Medicine. The examination follows the model of the Fellowship Examination of the Australasian Faculty of Occupational and Environmental Medicine and it consists of two parts: written examinations and a practical (clinical) examination.

Exit Examination

12. The Exit examination is a final and overall assessment of the candidate's training experience and examination performance, as well as the overall knowledge, skill, and aptitude

required of a specialist in Occupational and Environmental Medicine. The examination takes the form of an oral assessment.

D-2 Examination structure and syllabus

Part I Examination

13. The Part I examination is intended to test candidates' knowledge and understanding of the scientific basis of Occupational and Environmental Medicine. Sound knowledge of clinical medicine will be assumed. Candidates will be expected to have acquired basic knowledge and skills in Occupational and Environmental Medicine and a clear understanding of the principles and methods of related disciplines, notably occupational hygiene, toxicology, ergonomics, biostatistics, epidemiology, and clinical medicine. The candidates will be required to demonstrate:-

- (a) knowledge of the effects of occupation and the impact of technology on health and disease;
- (b) an understanding of the principles and concepts which underlie the discipline of Occupational and Environmental Medicine;
- (c) a working knowledge of the appropriate methods of research and enquiries; and
- (d) an ability to apply these principles and methods to the practice of Occupational and Environmental Medicine in Hong Kong.

14. The syllabus given below (6) provides guidance on the main topics which may be examined. Although it is described in sections, candidates should expect questions which require an integrated knowledge from the different sections. The level of knowledge, skill and understanding required within all sections of the syllabus is that which could be reasonably be expected of a competent specialist in Occupational and Environmental Medicine.

15. There will be two papers for the Part I Examination.

Paper IA (Duration: 3 hours)

Basic principles of Occupational Health and the Practice of Occupational and Environmental Medicine.

Paper IB (Duration: 1.5 hours)

Occupational Health Surveillance and Medical Examinations.

Paper IIA (Duration: 1.5 hours)

Epidemiology and Biostatistics.

Paper IIB (Duration: 2 hours)

Critical appraisal and application of material in an article from a journal.

16. Assessment Methods for Part I Examination

Candidates must pass Papers I and Paper II separately in order to pass overall.

17. Banking System

If a candidate gets a clear pass in one paper but fails in the other paper and gets a total score of at least the pass mark for the two papers (i.e. 50% of the total marks), s/he will be allowed to carry-over the passed paper, but s/he must re-sit the failed paper and pass it in the next available examination. Otherwise, s/he will have to re-sit the whole Part I examination.

Part II Examination

18. The Training Contents listed in Section IV of this document form the basis of examination questions and should be referred to when preparing for the examination. Candidates should also make reference to the syllabus given below E-1.

19. The examination shall consist of two parts. The second part will be held some weeks after the first part.

Part A - Written papers covering:

- (a) Research methods and critical appraisal.
- (b) Practice of Occupational and Environmental Medicine.
- (c) Other subject areas including *occupational hygiene* and *occupational toxicology, ergonomics in occupational health and safety, safety at work, management and industrial relations and rehabilitation and compensation medicine*.

20. It is necessary for candidates to pass Part A before advancing to Part B.

21. If a candidate passes Part A but fails in Part B, s/he will be allowed to re-sit the Part B for one more occasion within a period of 2 years. A candidate failing the Part B in the second attempt will have to re-sit the whole Part II examination.

Part B - A practical (clinical) examination covering the following:

- (a) an assessment of applied clinical skills, including occupational history taking, exhibits, x-rays, test results.
- (b) an assessment of occupational health at the workplace including safety, ergonomics, toxicology and occupational hygiene equipment.
- (c) an interview on general Occupational and Environmental Medicine practice.
- (d) short cases clinical examination

22. Candidates must demonstrate competence **in all sections** of the Examination in order to pass Part II overall.

Carry-over (banking)

The examiners may recommend carry-over for any section with a clear pass, provided that the candidate fails in only 1 section in the first attempt. The candidate will have to attempt the failed section and pass it in the next available examination. Otherwise, s/he will have to re-sit the whole Part II examination.

Exit Examination

23. The Exit Exam is a final and overall assessment of the competency of candidates to practise as specialists in Occupational and Environmental Medicine in Hong Kong. The examination will be in the form of an oral examination. All aspects of the sub-specialty in Occupational and Environmental Medicine may be examined.

E-1 Syllabus for Fellowship Examinations

Principles & Practice of Occupational and Environmental Medicine

- (a) Understanding man and his work
- (b) Occupational history taking
- (c) Principles of occupational health surveillance and screening
- (d) Pre-employment and periodic medical examinations
- (e) Biological monitoring
- (f) Noise induced hearing impairment
- (g) Occupational skin diseases
- (h) Occupational lung diseases
- (i) Occupational musculoskeletal diseases
- (j) Occupational cancers
- (k) Occupational eye diseases & injuries
- (l) Occupational and work-related diseases of other organs & systems
- (m) Impairment and disability assessment
- (n) Sickness absenteeism
- (o) Employee fitness program
- (p) Ethics in occupational health practice

Topics on Occupational Health

- (a) Applied physiology
- (b) Principles of occupational toxicology
- (c) Chemical hazards: metals, organic compounds, gas & vapours
- (d) Physical hazards: noise & vibration, ionizing & non-ionizing, radiations, thermal stress and compressed air work
- (e) Biological hazards: infections and hypersensitivity reactions
- (f) Occupational psychology
- (g) Ergonomics
- (h) Safety in the workplace
- (i) Hazard recognition and evaluation
- (j) Environmental assessment & monitoring
- (k) Preventive strategy and personal protective equipment
- (l) Environmental impact of industrial activities
- (m) Occupational rehabilitation
- (n) Legislation and regulations

Epidemiology & Research Methods

- (a) Epidemiologic principles
- (b) Study designs: cross-sectional study, case-control and cohort studies, intervention studies
- (c) Sampling frame and sampling methods
- (d) Measurements of risk and risk estimation
- (e) Applications in occupational epidemiology
- (f) Basic principles of statistics
- (g) Descriptive statistics and data presentation
- (h) Chi squared test, t tests, ANOVA

- (i) Simple regression and correlation
- (j) Multiple regression & logistic regression
- (k) Life tables and survival analysis
- (l) Non-parametric tests
- (m) Critical appraisal of study results and research reports