GUIDELINES

FOR

THE POST-GRADUATE CERTIFICATE COURSE

IN

INDUSTRIAL HEALTH OF 3 MONTHS DURATION

ASSOCIATE FELLOW OF INDUSTRIAL HEALTH (AFIH)



DIRECTORATE GENERAL FACTORY ADVICE SERVICE & LABOUR INSTITUTES
GOVERNMENT OF INDIA, MINISTRY OF LABOUR & EMPLOYMENT
CENTRAL LABOUR INSTITUTE
SION, MUMBAI 400 022

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1. ORGANISATIONAL SET-UP FOR CONDUCTING 3 MONTHS POST-GRADUATE CERTIFICATE COURSE IN INDUSTRIAL HEALTH (AFIH)

The course shall be controlled by the Directorate General Factory Advice Service & Labour Institutes, Government of India, Ministry of Labour, at the All India level and shall be assisted by the Advisory Bodies to be known as **AFIH Academic Council**.

1.1. ACADEMIC COUNCIL

1.1.1. COMPOSITION

The following15 members will constitute the Academic Council -

1.	Director General Factory Advice Service & Labour Institutes, Govt. of India, Ministry of Labour, Mumbai	President
2.	Dy. Director General Factory Advice Service & Labour Institutes, DGFASLI, Mumbai (to be nominated by Director General, DGFASLI)	Chairman
3.	Director (IM) / Deputy Director (IM) DGFASLI, Mumbai	Course In-charge & Member Secretary
4.	Director In-charge / Dy. Director (Industrial Hygiene Division), Central Labour Institute, Mumbai	Member
5.	Director General, Directorate General of Health Services Govt. of India, Ministry of Health & Family Welfare, New Delhi	Member
6.	Director National Institute of Occupational Health (NIOH) I.C.M.R., Ahmedabad	Member
7.	Director, I.T.R.C., Lucknow	Member
8.	Director of Industrial Safety & Health, Govt. of Maharashtra, Mumbai	Member
9.	C.I.F./Director of Industrial Safety & Health, from one State/U.T. as nominated by the President of the Council as nominated by the President of the Council	Member
10.	Representative of Confederation of Indian Industry	Member

11. Professor/Associate Professor/Reader of P.S.M./Community Medicine/Chest Diseases from a medical college as nominated by the President of the Council
12. Dean, (faculty of medicine) University of Mumbai Member
13. Head of a specialized institution related to Industrial Health such as Burn/Rehabilitation Centre etc. as nominated by the President of the Council
14. Clinical expert practicing Occupational Medicine/Chest Medicine/Skin as nominated by the President of the Council

15. Practicing Industrial health Expert with AFIH/DIH qualification as nominated by the President as nominated by the President of the Council

Member

1.1.2. FUNCTIONS

The council will function as an advisory body to the Director General. Nominated members shall have a term of 5 years. The council will have following functions:-

- To review and revise the syllabus, if necessary, from time to time and suggest changes in the curriculum of the course.
- To recommend the recognition of institutions/organizations desirous of running the course, after receiving the report of the committeeconstituted by the President/Director General, DGFASLI.
- To consider withdrawal/suspension of recognition in respect of institutions.
- To consider withdrawal of qualification/registration of the individual.
- Any other matter brought before the academic council for their advice by the President/Director General related to syllabus, recognition, withdrawal of recognition/qualification or any other technical matter.

1.1.3. **MEETING**

Academic Council shall meet ordinarily once in every year on the date and venue as decided by the President. However, special meeting may be called by the president to discuss special agenda.

All the expenses including TA/DA etc. incurred by the members for attending the meeting are to be borne by the members themselves/their departments as the case may be. DGFASLI will not be reimbursing any part of these expenses in respect of the members.

1.2. TECHNICAL COMMITTEE FOR CONDUCTING EXAMINATION

1.2.1. COMPOSITION

A technical committee will be formed by the Chairman of AFIH Academic Council to deal with the examination of AFIH course. The Chairman of AFIH Academic Council will also be the Chairman of technical committee for conducting the examination. The technical committee shall consist of representatives from the field of Industrial Medicine, Industrial Safety, Industrial Hygiene, Staff training & productivity of DGFASLI as members.

1.2.2. FUNCTIONS

The Chairman of AFIH Academic council shall be overall in-charge for the conduct of the examination and evaluation process.

Technical committee comprising of subject experts may be constituted by chairman for arranging question papers, appointment of question paper setters, printing of question papers and sending them to the centers so that it reaches on time, to appoint examiners for theory, practicals, project works & oral/clinical etc. and to receive the examiner's report etc., to get them tabulated by tabulator if needed and get back the details of marks and result.

The AFIH Academic Council will also be responsible for declaration of result and distribution of the certificates to successful candidates. Besides these, any and all work related to examination will also fall within the jurisdiction of the committee. The Member Secretary of the AFIH Academic Council will also act as member secretary of the technical committee for examination.

1.2.3. MEETING

The Technical committee constituted for the conduct of examination shall meet once in a year to decide the details of the examination and other business pertaining to its functions.

1.3 SECRETARIAT

Secretariat of the Council will be at AFIH Academic Council of the Central Labour Institute at Sion, Mumbai and will be managed by the Secretary. Administrative support shall be provided by the Central Labour Institute, Mumbai.

1.4. INSTITUTION LEVEL RESPONSIBILITIES

Every institution conducting the course shall nominate a Director, who shall be responsible for all the matters related to the course at the institute level. He shall be the only competent person to have any correspondence with the State Govt., Central Govt., DGFASLI and/or AFIH Academic Council.

2. REQUIREMENTS FOR RECOGNITION OF THE INSTITUTIONS TO CONDUCT THIS COURSE AND PREPARE THE CANDIDATES FOR EXAMINATION TO BE CONDUCTED BY THE TECHNICAL COMMITTEE FOR CONDUCTING EXAMINATION OF THE COURSE, DGFASLI, GOVT. OF INDIA, MINISTRY OF LABOUR.

2.1. PREMISES

Institutions/Organisations seeking such recognition must have premises of their own with all the facilities for imparting necessary training such as fully furnished class rooms, audio-visual aids, etc., sufficient space for imparting practical training as per the curriculum. The Institute should have a detailed proper postal address.

2.2. REGISTRATION

Institutions/organisations seeking such recognition must be a registered body under the relevant law.

2.3. EQUIPMENTS FOR PRACTICAL TRAINING

Institutions/organizations must have the facilities either of their own/or arranged for imparting practical trainings on orthorators, audiometry, lung function tests, ILO Radiographs, ECG., personal environmental sampling, dust counting, measurement of noise and illumination, assessment of heat stress and laboratories of pathological and bio-chemical analysis of blood, urine, stool etc.

2.4. COURSE DIRECTORS/COURSE CO-ORDINATORS

In case of institutes under DGFASLI, i.e. CLI and RLIs, the Course Co-ordinators shall be the Medical Officer in the level of Dy. Director (IM) and above and same will be approved by the Chairman, AFIH Academic Council, DGFASLI, Mumbai.

In case of CLI, there will be a Course Director at the level of not less than Dy. Director General to whom the Course Co-ordinator will report.

In case of RLIs, the Course Co-ordinator will report to the Director In-charge or Head of Office of the respective institute.

In case of other institutes, the Course Co-ordinators should be a Medical professional with MBBS Degree and AFIH Qualified with 3 years of experience.

All the course co-ordinators shall submit the report/status of the complete AFIH Course including the details of the candidates interviewed, selection of candidates, merit list of the selected candidates as per the Reservation policy subjected to its applicability; before the course starts, weekly attendance of the candidates, list of faculties, numbers of lectures as per the syllabus, theory, project, industrial visits nad term related information to AFIH Academic Council, DGFASLI on afih.ac@dgfasli.nic.in.

2.5. FACULTIES

Institutions/organizations must have faculties to impart the teaching of special topics competently. Normally, a faculty should be an MBBS with Post-graduate qualification in the respective branch of the medical science having sufficient experience inoccupational health.

Or

A medical officer with minimum 10 years experience in the practice of occupational health after MBBS qualification in a large industry.

Or

A Teacher/Faculty in a medical institution imparting such training.

Or

An officer of the Central Labour Institute, DGFASLI, will be the faculties subjected to the approval of Course Co-ordinator depending on the subject of specialisation.

Or

A Medical Inspector of Factories.

Faculties for non-medical topics should hold Masters Degree in the respective field with minimum 2 years of experience in the field, or a Bachelors Degree in Engineering with minimum experience of 2 years in the respective area.

2.6. FACULTIES FOR CLINICAL & SPECIALISED TRAINING

Institutions/organizations must have arrangements with the hospitals and large occupational health center dealing with industrial workers/medical college hospitals/district hospitals etc. for imparting the clinical training to the candidates in thearea of occupational health disorders/occupational diseases.

2.7. VISITS

Institutions/organizations must have arrangements for minimum 3 factory visits and minimum 2 institutions of specialized nature dealing with occupational health.

2.8. LIBRARY

Institutions/organizations must have a reasonably good library with books and journalsin the area of occupational health.

3. PROCEDURE OF RECOGNITION

3.1. APPLICATION

Application for recognition should be made to the Academic Council of AFIH enclosing the documentary evidence of fulfilling all the requirements. On receipt of applications, the committee constituted by Chairman/Director General, Academic Council of AFIH, may inspect the institution.

3.2. INSPECTION BEFORE RECOGNITION

Committee constituted by Chairman/Director General, Academic Council of AFIH may inspect the institutions to satisfy regarding the availability of facilities as per the norms before recommending the application to the Chairman/Director General. All the expenses of such inspection including TA/DA etc. of the inspecting team will be borneby DGFASLI.

3.3. PERIOD OF RECOGNITION

Initially the recognition shall be granted for 2 years to start the AFIH Course. The renewal of recognition shall be for every 2 years subjected to the performance evaluation by the committee appointed by the AFIH Academic Council. After evaluating the performance by the expert body of the academic council, the recognition period may be extended further or withdrawn as the case may be.

3.4. NUMBER OF COURSES AND PARTICIPANTS

The AFIH Academic Council shall decide and intimate the number of course to be conducted in a year.

The maximum intake capacity for the institutes of DGFASLI for Central Labour Institute, Mumbai is 100 seats, whereas for Regional Labour Institutes Chennai, Faridabad, Kanpur and Kolkata is 50 seats each at the respective institute, for every course to be conducted.

The maximum intake capacity for the other institutes recognized by the Council is 25 seats for every course to be conducted

4. COURSE DETAILS

4.1. NAME

The course will be called *POST GRADUATE CERTIFICATE COURSE IN INDUSTRIAL HEALTH - ASSOCIATE FELLOW OF INDUSTRIAL HEALTH.* In short, it may be written as AFIH.

4.2. DURATION

The course shall be a full time regular course and shall be of three months duration.

4.3. OBJECTIVE

The objectives of the course is to enable the doctors –

- to identify and manage the occupational health disorders / occupational diseases encountered in various industries in the country and to manage the industrial injuries caused by chemical intoxication, in general and in hazardous process industry in particular.
- to suggest preventive and control measures of such occupational health problems.
- to advise, supervise and participate in the national occupational health programmes for the health protection of industrial workers, improving national productivity and national prosperity.

4.4. ELIGIBILITY FOR ADMISSION

- 4.4.1. Candidates seeking admission must possess MBBS qualification with registration with concerned Medical Council of India.
- 4.4.2. Minimum of 1 year experience in industry or relevant field of occupational health or 2 years experience otherwise, after completion of compulsory internship.

4.5. SYLLABUS

4.5.1. THEORY

Introduction to occupational health, history and development of occupational health, status of occupational health globally and in India, Public Health and Social Welfare, Strategy for health protection of workers in India, role of Governments, Employers, Trade Unions and Employees in health protection of workers, General health policy of India including administration of health care delivery system in India, Safety movement and role of occupational health in total safety of industrial workers.

General sanitation, purification of water, drinking water supply, waste disposal in general.

Principles and relevance of toxicology, toxicology related to different system/organs, epidemiology – purpose, planning, determinants of diseases, methods, descriptive studies, analytical studies, case control and cohort studies, experimental studies, incidence rate, prevalence rate, mortality rate, morbidity rate, sampling, sample size, sampling methods, data analysis, standardization, preparation of reports, validity testing – standard deviation, t-tests, significance testing, Chi² testing, correlation, research methodology and planning for research in occupational health.

Occupational health disorders and occupational diseases - mode of causation, acute verses chronic, relationship between health and work, history and trendof occupational diseases, status of occupational diseases in India, occupational notifiable diseases as per the Factories Act, ESI Act, Mines Act and Port & Dock Workers health, safety & welfare regulation, occupational diseases listed in Workmen Compensation Act and Rules. Details of all such diseases including causation metabolism, pathogenesis, clinical features. investigations. differential diagnosis. diagnosis first-aid. prevention and control of such diseases. management. Occupational health disorders in hazardous processes.

Occupational lung diseases – occupational asthma, extrinsic allergic alveiolites and other special diseases such as silicosis, asbestosis, byssinosis and coal miners pneumoconiosis. Occupational skin diseases, occupational eye injuries, diseases due to physical environment – extremes of temperature, pressure, heat, noise, vibration and radiation.

Introduction & basics of ergonomics, back-ache, repetitive strain injuries, cumulative trauma disorders, stress performance, application of ergonomics in occupational health, anthropometry, principles of work station designing.

Diagnosis of occupational diseases – special investigations, biological monitoring, tests for mutagenacity, carcinogenicity, principles of behavioural toxicology.

Industrial Hygiene – Introduction to industrial hygiene, concept of TLV, airborne contaminants, organizing industrial hygiene service and industrial ventilation.

Industrial Safety – Accident prevention, safety committee, personal protective equipments, industrial illumination & colour, accident investigation & reporting.

Industrial Psychology – Introduction to industrial psychology, occupational stress & its management, shift work, occupational health disorders of psychological origin, well being programme.

Work Physiology, heat stress; techniques of training, identification of training needs, designing & conducting training programmes, communication & barriers of communication, effective communication; occupational health in relation to productivity – concept of productivity, inventory control & techniques, principles of kaizen.

History of legislation related to occupational health & safety, of industrial workers globally and in India, Factories Act & process of making of rules, health provisions under the Indian Factories Act, ESI Act, Workmen Compensation Act and relevant legislation. Workmen Compensation Act & evaluation of industrial injuries.

Occupational Health Service at work place – organization, function & management, prevention & control of occupational diseases – medical surveillance, pre-employment medical examination, pre-placement medical examination, periodic medical examination, pre-retirement medical examination, special medical examination, maintenance of health registers and records. Occupational health programmes – hearing conservation, vision conservation programme, industrial nutrition, first-aid service, ambulance service, medical emergency response planning for MAHC & use of computersin occupational health.

Recent advances in occupational medicine & relation/impact of diabetes, T.B., I.H.D., HIV. Women at work, national & international organizations in the field of occupational health, occupational health management, industrial nutrition, canteens.

4.5.2. PRACTICALS

Lung function tests, Audiometry, Vision testing (Orthorator), E.C.G., Biochemical & pathological investigations, routine & special, I.L.O. radiographs, dust counting, use of personal sampler & measurement of noise, heat illumination and ventilation, anthropometry.

4.5.3. CLINICAL TRAINING IN HOSPITALS/PUBLIC HEALTH DEPARTMENTS/OCCUPATIONAL HEALTH CENTRES IN INDUSTRY:

Clinical teaching in hospitals dealing with industrial workers, preventive and social medicine, public health/community medicine.

4.5.4. EDUCATIONAL VISITS

At least 9 field visits must be conducted to study the functioning of occupational health services, specialized advanced management of diseases & centers for management of occupational health problems.

4.5.5. TUTORIALS / PAPER PRESENTATION

Every candidate must present health & safety related paper on the allottedtopic. His/her presentation should be discussed in detail in the class.

4.5.6. PROJECT WORK

Every candidate shall submit a project work (thesis) on the topics allotted to them as per the guidelines.

4.5.7. GROUP DISCUSSION/WORKSHOP/SEMINAR

4.6. EXAMINATION

On completion of 3 months curriculum, examination shall be conducted and successful candidates will be awarded the certificates to that effect.

4.6.1. ELIGIBILITY TO APPEAR IN THE EXAMINATION

4.6.1.1. Candidates must attend the classes regularly and shall have minimum of 80% attendance inclusive of theory, practical, industrial visit, project work etc.

Candidate having a shortfall of not more than 10% of attendance, may be considered for appearing for the examination subjected to the decision of AFIH Academic Council.

Candidates with shortfall of 80% attendance will be debarred from appearing the examination and shall not be allowed to appear the examination in future. However, such candidate may re-apply for the course, he/she has to undergo the complete procedure of the admission to the course and shall be eligible to appear for the examination only after undergoing the complete course again with 80% attendance.

4.6.1.2. Candidates must have submitted the project work, tutorial/presentation of paper, practical note book and field visit books.

4.6.2. APPLICATION FOR APPEARING IN EXAMINATION

- 4.6.2.1. Candidates attending regular course should forward their application through the Director of the institute along with the necessary enclosures to the Secretary, the AFIH Academic Council so that it reaches him before the stipulated period.
- 4.6.2.2. Candidates who failed in the earlier examination/could not appear butwere declared eligible to appear, should submit their application for re-appearing in the examination. Examination forms and other details can be obtained from the respective institutes.

4.6.3. ADMIT CARD

Candidates found eligible to appear in the examination shall be issued with an admit card which they must produce to the authorities on demand before entering the examination hall.

4.6.4. EXAMINATION PROCEDURE

4.6.4.1. Theory

A multiple-choice questionnaire containing 100 questions with multiple answers shall be given to the examinees to pick up the correct answer. Every correct answer will be of 1 mark and every wrong answer will be of minus ¼ marks. Candidates securing 50 marks shall be declared to have passed in this section. Time allowed for this shall be 2 hours.

4.6.4.2. Practicals/Oral/Clinical/Project Work

Practical/Oral/Clinical/Project Work examinations shall be of 100 marks which is divided as –

Candidates securing minimum of 50 marks [25 marks in (i) and 25 marks in (ii) separately] shall be declared to have passed in this section.

- 4.6.4.3. To qualify for the award of certificate, a candidate must pass in both the sections as mentioned in 4.6.4.1. & 4.6.4.2. separately. Those securing 75% and above as total will be declared to have passed with distinction.
- 4.6.4.4. Candidates who have failed and wish to appear again in the examination shall have to appear in both i.e. theory and practical, oral, clinical, project work etc. sections irrespective of their performance in various sections in the last examination in which they appeared.

A candidate re-appearing after two years (either failed twice or could not appear for two years due to any other reason shall have to submit a fresh project work (thesis) on a topic allotted to them by the institute.

4.6.4.5. Question paper setter

The AFIH Academic Council approves the paper setting committee for each year comprising of officers representing the experts from respective fields.

The paper setting committee shall prepare 2 sets of question paper and hand it over in sealed cover to the AFIH Academic Council. The AFIH Academic Council with minimum of 3 independent officers shall open the question paper two hours before examination and will send to the examiners in password protection for later distribution of question paper.

The Course Director/Course Co-ordinator/Invigilator (as the case may be) shall collect the examination paper and answer sheet together of all the candidates in the examination center, shall seal it and dispatch the same by registered speed post within 1 hour of closing of the examination to the AFIH Academic Council.

4.6.4.6. Examiners

Examination shall be taken by duly appointed examiners by the the AFIH Academic Council. The number of such examiners shall be minimum of four, one each for theory, practical, oral/clinical and project work & field visit work book. Out of the four, minimum one and maximum two examiners may be from the institute concerned and remaining from outside. However, The AFIH Academic Council may decide to appoint all the examiners from outside, if they desire so.

Examiners shall submit the details of marks obtained by the candidates and examiners report to the Secretary of the The AFIH Academic Council within 15 days of the examination. After receipt of the marks from examiners, Secretary will send it to tabulator for preparation of detailed tabulation sheet and result which tabulator will submit back to the Secretary.

4.6.5. RESULT

On receipt of the final result sheet from the tabulator, Secretary, Technical Committee for examination shall process the matter for perusal and approval of the Director General, Factory Advice Service & Labour Institutes, Ministry of Labour, Government of India.

In special circumstances, Director General may grant up to 3 marks as grace to candidate/candidates if he feels necessary. On receipt of the approval, Secretary will declare the result.

4.6.6. CERTIFICATES

Certificates shall be awarded by the DGFASLI, Ministry of Labour, Government of India and the same will qualify to fulfill the requirements as stipulated in this regard in the Factories Act and rules frame there under in the country.

4.6.7. REGISTRATION

DGFASLI, Ministry of Labour, Government of India shall maintain a register of successful candidates, who passed the examination of AFIH. The register shall have the entries in respect of name, address, father's/husband's name, appointment if any. The serial number of entries in respect of the particular candidate in this register shall be deemed as his/ her registration number. Every successful candidate shall be provided with a copy of such entries called as 'certificate of registration'.

No individual shall be entitled to any special consideration on the basis of certificate of passing the examination of AFIH certificate unless he or she is registered with the DGFASLI and the details are entered in the aforesaid register.

4.6.8. WITHDRAWAL OF REGISTRATION

The registration accorded to any individual may be temporarily suspended or permanently withdrawn by the Director General, Factory Advice Service& Labour Institutes, Ministry of Labour, Government of India on the recommendation of the academic council, if a duly appointed committee by either him or academic council finds the individual not worthy of retaining the same and by the action has brought about the disrepute to the profession or the institute.

The decision of the AFIH Academic Council on all matters connected to the AFIH Course will remain final.