

PG CERTIFICATE IN MEDICAL MANAGEMENT OF CBRNE DISASTERS

INDIRA GANDHI NATIONAL OPEN UNIVERSITY

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Indira Gandhi National Open University (IGNOU), the largest open university in the world, was established by an act of Indian Parliament in 1985, and started offering academic programmes in 1987. Today, it serves the educational aspirations of about over 3 million students through twenty one schools of studies and a network of 67 regional centres, sub regional centres and 3136 Learner Support Centres (LSCs). The University offers 257 certificate, diploma, degree and doctoral programmes through a strength of 700 faculty members and academic staff at the headquarters and regional

centres and about 60,000 academic counselors drawn from conventional institutions of higher learning, professionals from various organizations and bodies, among others. IGNOU provides seamless access to sustainable and learner-centric quality education and training to all by using innovative technologies and methodologies and ensures convergence of existing systems for large-scale human resource development, required for promoting integrated national development and global understanding. The University has been in existence for only two decades. In such a short time, the University has contributed significantly to higher education and continuing professional development in the country catering to the education of about 13 per cent of total students enrolled in higher education (and more than 50 per cent of total students in distance education) in the country. As a world leader in distance education, IGNOU was conferred the Centre of Excellence Award in Distance Education in 1993. NAAC has Accredited IGNOU with A++ Grade in 2021 and ranked as Number 1 in Atal Ranking of Institutions on Innovation Achievements in the category "Institute of National Importance, Central University & CFIs (Non-Technical).

SCHOOL OF HEALTH SCIENCES

School of Health Sciences, is one of the 21 schools in IGNOU. It was established in 1991 with the objective of augmenting educational avenues for medical, nursing and paramedical personnel through distance education mode. The various functions of the School are planning, developing and launching of Post Doctoral Degree, Diploma And Certificate level Programmes for various categories of Health Professionals; Health Awareness programmes for the general public and conducting research on health issues. The School is offering a number of Medical, Nursing, Paramedical, Competency Based and Practical Oriented Programmes. Some of the important areas in which the programmes have been developed for doctors are Maternal and Child Health, Geriatric Medicine, HIV Medicine, Dialysis Medicine, CBRNE. Programmes being offered for nurses include Ph.D, Post Basic B.Sc nursing, Nursing Administration, Critical Care, Maternal and Child Health and New Born and Infant care. The School also has programmes for people working in the health sector other than nurses and doctors like Certificate in Home Based Healthcare, Certificate in Health Care Waste Management, BPCCHN Programme, Certificate programme in General Duty Assistance, Geriatric Care Assistance, Phlebotomy Assistance and Home Health Assistance. All these programmes are practical based and help to sensitize and equip the learners with competencies in the area specific to the respective programmes to manage various problems in the health sector. The programmes have been developed and supported by various National and International organization like Government Departments, Ministries, Councils and reputed organizations like WHO, UNICEF, INMAS, DRDO, National Board of Examination, MoHFW, NHIFW & ICMR through collaborations.



INMAS DRDO

INMAS is the only institute at national level that offers complete package on CBRN medical management in terms of basic and applied research, training, innovative drugs and equipment, new concepts consultancy, audit and doctrines. More than 400 peer reviewed papers, five books and more than 60 CBRN relevant products in one decade are testimony to its leading status. It provides assistance to military & paramilitary forces, NDMA, Airports, Ports and Railway authorities on CBRN security matters.



PG CERTIFICATE IN MEDICAL MANAGEMENT OF CBRNE DISASTERS

Chemical, Biological, Radiological, Nuclear and Explosive agents can be maliciously used to create intentional damage, death and destruction which can have serious impact on national and international security and stability. Immediate measures taken to control the damage, spread and after effects of such attacks are pivotal in managing a CBRNE scenario. Primary care at the incident site and subsequent medical management of the affected population play a vital role in reducing morbidity and mortality arising out of such an attack.

Accidents can also occur where these agents are used and can create havoc.

Lack of medical knowledge and information, relative lack of specific drugs and the sudden and overwhelming demand on the health infrastructure in the region are the main reasons that contribute to the mass scale tragedy. Formal medical courses in India (and indeed globally) such as graduate, post graduate and super-specialty degrees do not equip the medical fraternity with the wherewithal needed to tackle CBRN threats that are on rise nationally and globally.

IGNOU in collaboration with INMAS DRDO has developed the PG Certificate in Medical Management of CBRNE Disasters Programme. The programme has also received active support from IDS (Med Hq). Within the tri-Services (Army, Navy, Airforce), Integrated Defence Services Hq is the agency that carries training programs for military personnel through its own network, it needs augmentation in terms of training in medical management in a way that even remotely located doctors can be trained effectively and help create a national network of medical responders.

This 6-month long Certificate Programme is the first of its kind in India that fulfills this long standing national and security need through Distance Learning. The Programme adds the missing link to the fields of Disaster Medicine & Emergency Medicine at global level, considering the reach of the University.

OBJECTIVES OF THE PROGRAMME

After successful completion of the programme the learner should be able to:

- comprehend the parameters, enormity and complexity of CBRNE threat from a medical perspective
- describe the impact of chemical, radiological, biological, explosive and nuclear agents on human health
- assess the health effects of a CBRNE scenario using external and internal assessment tools
- discuss regarding the medical counter measures, detection equipments and SOPs of medical management of CBRNE impacts.
- deliver first aid and initiate immediate life saving responses to a CBRNE disaster
- develop competencies on protection, mitigation and medical management of CBRNE casualties
- get sensitized about the current R&D initiatives and future directions.

BENEFICIARIES

The categories of medical personnel who could be the beneficiaries are -

- Medical personnel & students engaged in or interested in disaster medical management
- Doctors in armed forces, police forces, health services, railways, airports/ports, & NDRF or State disaster forces who have to or can be called on to respond in face of CBRNE disasters.
- Doctors working in or for organizations considered vulnerable to CBRN attacks or accidents such as industrial complexes, Shrines, melas, areas prone to terror attacks, border towns etc.
- All large and medium-large hospitals (public & corporate sector) where 1-5 faculty needs to get additional training in handling CBRNE disasters
- Medical Management of all referral hospitals
- Retired doctors who want to contribute to the Nation's strength & medical security in CBRN.

UNIQUENESS OF THE PROGRAMME

- This programme focuses on medical management of CBRNE agents. No such course is available in India or probably in Asia.
- The Programme can meet the need for industry, government and private hospitals to have doctors trained in CBRNE disasters
- This programme is important from national economics and security point of view.

WHAT STUDENTS SHALL LEARN DURING THE PROGRAMME

- What happens during a nuclear bomb explosion, dirty bomb dispersion, nuclear power station disasters like Chernobyl & Fukushima etc
- How the CBRN Agents harm human body and society
- How to decontaminate, protect and mitigate using medical technologies
- What are the common chemical war agents and toxic industrial chemicals that have or can cause disaster
- How are the CBRN agents detected and controlled
- How are the harmful effects of these agents on the body diagnosed and treated
- Pre-hospital and hospital management technologies

CAPABILITY OF STUDENTS AFTER COMPLETING THE PROGRAMME

The student will be able to comprehend, detect and manage CBRNE causalities, handle overwhelming number of people for screening and treating in adverse conditions and limited logistics. They will develop capacity and capability to act like medical commander and controller of situation.

ELIGIBILITY

Medical doctors with the following can apply:

- MBBS degree from a MCI recognized college
- Open only to Indian citizens
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DURATION

6 months. Maximum: 2 years

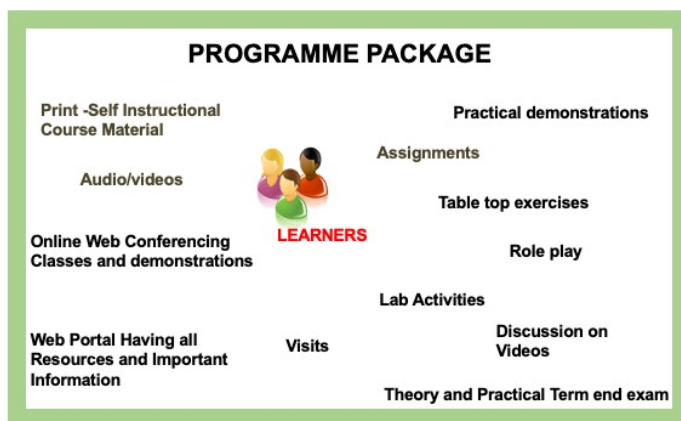
SESSION

January to June. July to December

PROGRAM PACKAGE

The programme package consists of Self Instructional Material (SIM) in the form of booklets called blocks, videos, web conferencing classes, hands on practical sessions at Learner Support Centres housed in Medical Colleges, assignments and term end theory and practical examinations

The theory study 'at home & at place of work' during Basic & Advanced Course is augmented with tools like SIMs, live interaction during webconferencing sessions for interaction with faculty and subject expert, Q&A through e-mails & documentary clips viewing, apart from suggested readings.



Practicals consist of Online and Face-To-Face Demonstrations, Do-it-Yourself & Group Exercises, table Tops and video viewing.

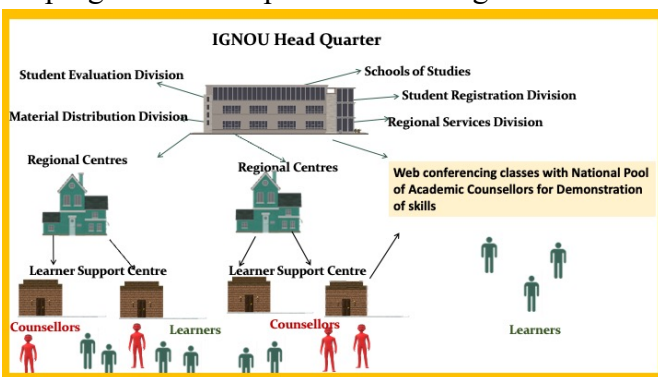
Log books are the practical record books. These are evaluated periodically and are pre-requisite for appearing / clearing the exam.

All the resources and the important announcements are placed on a dedicated web portal platform which can be accessed anytime anywhere by the students.

Internal assessments in the form of assignments and term end examination both for the theory as well as the practical courses are part of the programme package.

IMPLEMENTATION PLAN

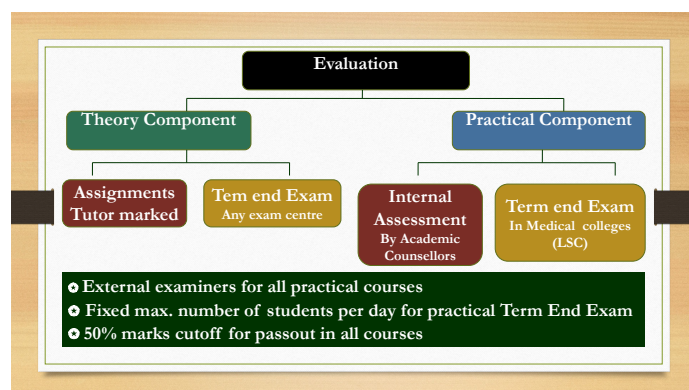
The programme is implemented through a network of Learner Support Centres (LSC) all over the



country. A team of trained teachers called academic counselors have been identified and trained for providing academic counseling, assignment and term-end examination in the Learner Support Centres. Part of the training is provided Online and part through Face-To-Face interactions in these Learner Support Centres.

The administrative control is through the Regional Centres (RCs) of IGNOU located usually at state capitals in India and the School of Health Sciences (SOHS) located at the IGNOU Headquarters, Delhi, India.

EVALUATION



Students are evaluated both for theory as well as practical courses. They are required to submit assignments for the theory courses as part of the continuous assessment at their LSC and appear for theory exam at a centre of their choice any where in the country. There will be one theory paper for each of the two theory courses. Students will be marked for internal assessment for the practicals

conducted at the LSC and for the online classes. The Term-end Examination for the Practical will be conducted at the LSC.

DETAILED PROGRAM DESIGN

Course 1 CBRNE THREATS AND AGENTS

4 Credits

Block 1 Introduction to CBRNE Threats

Block 2 Basics of Radiological Agents

Block 3 Basics of Chemical / Industrial Disaster Agents and New Age Explosives

Block 4 Basics of Biological Agents

Course-2 Health Effects and Medical Management of CBRNE Agents

6 Credits

Block 1 Effect of Nuclear and Radiological Agents on Human Health

Block 2 Medical Management of Radiation & Nuclear Injuries

Block 3 Health effects of Chemical Agents

Block 4 Medical Management of Chemical Threats and New Age Explosives

Block 5 Health Effects and Medical Management of Biological Agents

Block 6 Approach to Investigate and Manage a CBRNE Attack

Course 3 – Practical Aspects of CBRNE

6 Credits

Practical Manual 1

Practical Manual 2

Practical Manual 3

Logbook 1

Logbook 2

Logbook 3

HOW TO APPLY

ADMISSION

Admission is through the online application form available at the Samarth portal on IGNOU website www.ignou.ac.in. Advertisement and application forms are available on the website in the month of November/December for the January session. Link for the January 2022 session is

<https://ignouflip.samarth.edu.in/index.php/site/index>



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USEFUL LINK

<http://www.ignou.ac.in/ignou/aboutignou/school/sohs/programmes/detail/230/2>

