



Integrated MSc & PhD in Health Informatics

A two-year Master's program in Health Informatics,
with the option of pursuing a PhD, if eligible, as an Integrated MSc-PhD in Health Informatics

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BACKGROUND

Health informatics has tremendous promise in improving the efficiency, cost- effectiveness, quality, and safety of health care service systems. However, realizing the promise has been a difficult path for health care organizations, as there is a serious dearth of adequately skilled Health Informatics professionals. General purpose information technology solutions are usually inadequate for specialized needs of the health sector. Health Informatics deals with four major interdisciplinary components; emerging technologies, epidemiology and health management, advanced statistics and health systems. The scope of health informatics is very wide as there are a variety of emerging new technologies that need to be understood, adapted, and validated for use in health systems and then managed for continuous improvement.

DEGREE AWARDING AND REGISTERING BODY

The MSc & PhD (Health Informatics) programme will be jointly conducted by PHFI and AcSIR and the degrees will be awarded by Academy of Scientific and Innovative Research (AcSIR). For more information visit <http://acsir.res.in>.

Integrated MSc & PhD in Health Informatics offered jointly by Public Health Foundation of India (PHFI) in collaboration with Academy of Scientific and Innovative Research (AcSIR) has the potential to bring the best in health care and technology based on research and innovations on one platform for students across India and South Asia.

PROGRAM STRUCTURE

Masters in Health Informatics

The MSc program in Health Informatics is an intensive 2 year, full time program focusing on applications of Informatics and Technologies in Public Health. A total of 4 semesters will be completed in 24 months with each semester spanning 6 months. The first three semesters include class room and lab based face to face teaching and the final semester includes 6 months of thesis cum internship. The student needs to complete 9 compulsory core courses (modules), 6 elective courses (modules) in 18 months and submit an internship completion certificate to be awarded the MSc degree.

PhD in Health Informatics

The students who complete the Master's program with a CGPA of 8 and above will be eligible for the PhD program. A formal application needs to be submitted which will be screened & enrolment will be finalized by the PhD screening committee. The PhD program is of minimum 3 years, full time and project based. The research topic for PhD will be developed under the guidance of mentors from PHFI and AcSIR. The students are free to choose any topic of their interest ranging from basic sciences to community based studies. The student can be allocated to any of the CSIR Labs participating in the collaborative program on mutual consent.

PROGRAM ADMINISTRATION AND LANGUAGE

The program is being offered from the Indian Institute of Public Health – Hyderabad (IIPH-H), Public Health Foundation of India (www.phfi.org). The main language of instruction would be English.

PROGRAM CONTENTS

The multi-disciplinary curriculum that will be covered under the core courses (modules) include: Public Health Concepts and

Practices; Biostatistics; Principles of Epidemiology and Research Methodologies; Developing Health Informatics Systems: Software, Hardware, Networks and Sensors; Telemedicine; Project Management and Evaluation of Public Health Informatics Systems; Patients Monitoring Systems (PMS); Clinical Decision Support Systems (CDSS); Electronic Health Records (EHR) and Research writing - Proposal development, Protocol and Report writing.

Under the elective courses we offer various areas that will fall under the following streams: Public Health Management; Health Financing and Insurance; Principles of Environmental Health Sciences; Logistic Planning and Drug Distribution; Public Health Nutrition Urban Health; National Health Programs; Electronic Surveillance in Public Health; Data Mining and Data Forecasting in Public Health; Ethics in Health Informatics; Cyber Security for Health; Biometrics for Health Systems; GIS in Public Health; Wearable Diagnostics; Consumer Health Informatics (CHI); Electronic Medical Education (EME); Veterinary Health Informatics; Nursing Informatics; Bio Medical Gene Technology Informatics; and finally Open elective that can be uniquely designed.

Please visit (www.phfi.org) to know more about the course (module) information of this program.

TARGET AUDIENCE AND ENTRY REQUIREMENTS

This program is relevant to those wishing to gain an in depth understanding of applications of Informatics and Technologies in Public Health & also keen to specialize in a various areas of Health Informatics.

Minimum Academic Qualifications

Bachelor's degree, in any science discipline under the 10+2+3 system. Preference will be given to candidates with working experience in health care and information technology.

All applicants should have basic computing skills and proficiency in English.

SELECTION PROCESS

All candidates should submit the application form for the Integrated MSc & PhD program in the prescribed format, which can be downloaded from PHFI website https://phfi.org/wp-content/uploads/2017/07/HI-2022-session-Application-Form_31-May-2022.pdf. The application consists of registration form, proof of academic credentials, work experience, contact details of 2 referees (academic and/or professional) and a statement of purpose. The applications will be short-listed based on their academic qualifications, relevant experience and statement of purpose. This will be followed by an interview. The selection of candidates will be executed by a specially constituted screening committee represented by Public Health Foundation of India and Academy of Scientific and Innovative Research.

The final selection of the candidate for MSc is based on qualifications, relevant experience, statement of purpose and interview. The weightage for each component will be as follows:

Qualifications	-	25%
Relevant experience	-	5%
Statement of purpose	-	10%
Interview	-	60%
Total	-	100%

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Decisions taken by the selection committee will be final. The selection into this program does not guarantee entry into PhD program. Selection for PhD will be made strictly on the basis of merit and performance in the MSc program.

Reservation of seats in admissions will be as per Government of India policy as applicable from time to time. If suitable candidates are not available under the reserved category, the seats will be filled by general category candidates

TEACHING AND TRAINING METHODOLOGY

The course utilizes a variety of teaching / learning techniques, which includes lectures, group discussions, student presentations, hands on practice in statistical softwares in computer labs, basic sciences laboratory, workshops and field visits. During the internship the students will get an opportunity to engage in research related activities that could be based in a community, hospital or a laboratory.

FACULTY

A team of specialist faculty from diverse streams from Public Health Foundation of India and Academy of Scientific and Innovative Research would be engaged in teaching. The students will also be exposed to lectures delivered by invited faculty of national and international acclaim. Guides will be identified from both the organizations for mentoring during the internship and project work.

CREDIT AND EVALUATION SYSTEM

The program will follow a credit system consistent with AcSIR norms. Credits are awarded for successful completion of each course (module) and thesis. A total of 64 credits need to be earned for award of the degree. Student evaluation for each course (module) would be through a concurrent internal assessment during course work (that includes assignments, attendance and class room participation) and marks scored in the end of semester proctored examination. The weighted average of both will contribute to the course (module) GPA. A detailed evaluation framework will be provided to the students before the beginning of the course.

PROGRAM FEES

The fee structure for MSc (Clinical Research) program for the candidates admitted in the year 2022-24 will be as follows:

For Indian and South Asian Nationals

Tuition Fee:

The annual tuition fee for the students admitted in academic year 2022-23 is INR 2.00 Lakhs per student per academic year (The total tuition fee for the two year program is Rs. 4,00,000/- which includes Rs. 10,000/- admission fees and Rs. 10,000/- examination fees)

For International Candidates

Tuition Fee:

The annual tuition fee for the students admitted in academic year 2022-23 is USD 5,600 per student per academic year.

Scholarship:

Limited number of scholarships for MSc may be awarded for deserving and meritorious candidates, subject to availability of funds.

PLACEMENT OPPORTUNITIES

The internship during the Masters program would provide the candidate an opportunity to interact with potential researchers. The setting may be a hospital, research organization or the pharmaceutical industry. The placement cell will also strive to arrange for campus interviews with companies needing health informatics expertise. However, no formal guarantee will be provided to any candidate regarding future job selection after the completion of the program.

ABOUT PUBLIC HEALTH FOUNDATION OF INDIA (PHFI)

PHFI is a public-private initiative that collaboratively evolved through consultations with multiple constituencies, including Indian and international academia, state and central governments, multi- and bi-lateral agencies, and civil society groups. PHFI aims to address the limited institutional capacity in India for training, research, and policy development in the area of public health through establishment of Indian Institutes of Public Health across the country.

The Indian Institute of Public Health (IIPH) Hyderabad commenced its activities on July 1, 2008, with a mission to deliver public health education, pursue research and advocacy and support policy development. It lays strong emphasis on pursuing public health policy, practice, training and research, positioning its programmes according to the public health priorities of the state and the nation. The institute has brought together a highly qualified and diverse faculty, of nationally and internationally trained and extremely motivated public health academics and practitioners. It aims to create an environment that supports excellence in instruction, research and practice.

ABOUT ACADEMY OF SCIENTIFIC AND INNOVATIVE RESEARCH (AcSIR)

The Academy of Scientific and Innovative Research (AcSIR) is an Institution of National Importance (INI) established by an Act of Parliament AcSIR Act 2011. The Ministry of Education (formerly, Ministry of Human Resource Development) of the Union Government has allocated U-0713 as the ID of AcSIR as an INI (<https://www.education.gov.in/en/institutions-national-importance>). The AcSIR Act 2011 was notified in the Gazette of India on April 03, 2012. The Central Government gazette notified CSIR-HRDC, Ghaziabad as the Headquarters of AcSIR on July 19, 2018.

The academic functionality of AcSIR is based on a 'Hub and Spoke' model wherein the AcSIR Headquarter constitutes its 'hub' of centralized shouldering of the responsibilities of academics-cum-administration in the perspectives of policy decisions, academic programme development and promotion, course curriculum development, academic alliances/collaborations, admissions, certification, academic monitoring and internal quality control etc, whilst CSIR National Laboratories/Institutes represent the 'spokes' to serve as the mainstay of teaching, mentoring, and doctoral research work through world class research infrastructure of CSIR and under the top-tier mentorship of CSIR scientists appointed as AcSIR faculty members. With rapidly growing standing of AcSIR in the arena of academics/higher education (particularly Ph.D. program), recently, many non-CSIR national research institutions/organization of repute have also affiliated with AcSIR as

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its Associate Academic Centres. Geographically, AcSIR offers the opportunity of pursuing Masters and doctoral programs in Science and Engineering at ~30 locations across the length and breadth of the nation. AcSIR is rapidly establishing academic linkages with reputed international universities/institutions of education to promote student mobility and exchange in a structured manner for a perennial path. AcSIR- RMIT University (Australia) Joint Ph.D. Program (Cotutelle) is the first successful collaboration of a large scale student mobility for cross-institutions guidance and peer to peer learning.

The objectives of AcSIR, as stipulated in the AcSIR Act 2011, are:

- To disseminate advanced knowledge in science and technology, by providing teaching and research facilities in such branches of learning as it may deem fit, particularly in emerging areas and such areas as may emerge in future;
- To undertake inter-disciplinary studies and research;
- To conduct courses in, and integrated into its courses, inter-disciplinary and multi-disciplinary areas covering natural sciences, life sciences, mathematical and computational sciences, medical sciences, engineering, applied art, humanities, social sciences, law relating to these areas and interfaces thereof;
- To take appropriate measures for innovations in teaching and learning processes;
- To create an ambience for learning and scholarship in advanced science and technology instead of exclusively focusing on marks or grades;
- To educate and train manpower in scientific and technological fields;
- To establish linkages with industries in India and outside India for the promotion of science and technology;
- To collaborate, in appropriate areas in the field of science and technology, with reputed universities and institutions in India or outside India;
- To promote research in science and technology having an impact on social, economic, cultural, intellectual and academic welfare of the people;

This mandate and mission of AcSIR is being achieved progressively through interdisciplinary and cross-disciplinary approaches covering the faculties and areas of Biological Science, Chemical Science, Engineering Science, Mathematical & Information Science, Physical Science. As on December 07, 2021, 774 Masters and 2850 PhD students have already graduated from AcSIR. Currently, with about 5500 Ph.D Students on its rolls in Science & Engineering, AcSIR is the largest institution of higher education in India and one of the largest in the world in this respect.

AcSIR has attained 2nd rank in 2021 with respect to SCImago ranking of higher education institutes in India. SCImago Rankings (2021) of AcSIR among higher education institutes in Asia and the World are 130th and 364th, respectively.

As per Nature Index Rankings, AcSIR occupies the 11th rank among Universities in India, 174th rank among Universities in Asia, and 470th rank among Universities worldwide for the period September 01 2020 to August 31, 2021.

UNIQUENESS OF THE PROGRAM

This Health Informatics program is a blend of principles of basic and advanced research and its application in health sector. It supports AcSIR's mission and vision of affordable health care by advancing knowledge and technology. It also fulfils PHFI's mandate of improving research by imparting training to health care professionals.

This program delivered by PHFI in partnership with AcSIR aims to contribute in innovative ways to promote health and improve patient management in India. During the academic tenure, apart from the program activities and academic support from the faculty, the students will be exposed to series of workshops relevant to the specific course (modules) and due importance will be given to impart soft skills that enhance their placement opportunities. Successful completion of the MSc program may serve as excellent foundation to go on to take higher degrees like PhD (within and outside India).

OTHER PROGRAM IN COLLABORATION WITH AcSIR

1. Integrated MSc & PhD in Clinical Research at Indian Institute of Public Health-Delhi

Integrated MSc & PhD in Clinical Research is a full-time 2-year program being offered jointly by Public Health Foundation of India (PHFI) and Academy of Scientific and Innovative Research (AcSIR) from the academic year 2013-14 at the Indian Institute of Public Health-Delhi. This multi-disciplinary program focuses on the scientific, ethical and operational issues related to clinical research. This program is a blend of basic and advanced research and its application in health sector.

2. Master of Public Health (MPH) at Indian Institute of Public Health-Delhi

Public Health Foundation of India (PHFI) in collaboration with Academy of Scientific and Innovative Research (AcSIR) brings you this unique opportunity to further your career in the area of public health through the Master of Public Health program. The MPH program is an intensive two-year full time program focusing on enhancing skills and abilities of students in research, management, problem solving, and critical thinking in the area of public health.

Log on to www.phfi.org for more information about these programs

For more information about the program and to download the program brochure and application form visit: www.phfi.org

Please send your filled application form to the address given below:

Senior Program Officer | Academic Programs

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