

# Internship Plan

## Health Informatics Program

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## Overview

This guidebook aims to describe the internship program of the Health Informatics program. The completion of a 48-week internship program is mandatory for all graduates of medical and health bachelor programs. During the internship program, interns will be trained and rotated in different training places related to their academic specialty such as hospitals, various health care services facilities and other training sites.

The internship program tends to provide a practical experience for qualified graduates in which they can apply the knowledge and skills acquired during academic program.



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## Internship Rotations

Rotation	Areas	Duration	Note
Hospitals	<p><b>Compulsory</b></p> <ul style="list-style-type: none"> <li>➤ E health /IT.</li> <li>➤ Medical Records.</li> </ul> <p><b>Elective</b></p> <ul style="list-style-type: none"> <li>➤ Radiology.</li> <li>➤ Laboratory management systems.</li> <li>➤ Drug management systems (Pharmacy).</li> <li>➤ Quality and Patient Safety.</li> <li>➤ Bed Management.</li> <li>➤ Claims, Billing and Reimbursement (Insurance).</li> <li>➤ Statistics.</li> <li>➤ OPD.</li> <li>➤ Medical Coordination.</li> </ul>	36 Weeks	<ul style="list-style-type: none"> <li>➤ Intern can select 5 areas from the 9 elective areas: <b>4 weeks in each area.</b></li> <li>➤ There are two compulsory areas: <b>8 weeks in E-Health &amp; IT</b> <b>8 weeks in Medical Records</b></li> </ul>
Health Cluster	<ul style="list-style-type: none"> <li>➤ Information Technology.</li> <li>➤ Health Applications Management.</li> <li>➤ Knowledge Management.</li> <li>➤ ICD Code.</li> </ul>	8 Weeks	
Primary HealthCare Centre	<ul style="list-style-type: none"> <li>➤ Public Health Monitoring.</li> <li>➤ Medical Records.</li> <li>➤ Referral System.</li> <li>➤ Lab and Inventory Management.</li> <li>➤ Medical Report.</li> </ul>	4 Weeks	
Vender Company Training	This is an optional rotation where the intern can select to do this rotation in companies such as cloud solutions, lean business services, Epic, Elm, IQVIA or any other company that provide training within the intern field.	12 Weeks	If the intern chose to do this rotation, the 12 weeks duration will be deducted from the 36-week allocated for hospital rotation or from health cluster & PHC rotations (8+4) weeks

## Hospital Rotation

Rotation	Skills & Tasks	Duration	Note
E health /IT	<p><b>Technical (hardware as well as software) resource management</b></p> <ul style="list-style-type: none"> <li>➤ Identify various computer hardware networking devices and their uses and installation.</li> <li>➤ Identify the various software categories and get familiar with their installation/setup in the existing system.</li> <li>➤ Application of knowledge of database querying, architecture design and data mining techniques to facilitate the information retrieval.</li> </ul>	8 Weeks	Compulsory rotation
Medical Records	<p><b>Record Keeping</b></p> <ul style="list-style-type: none"> <li>➤ Patient registration activities.</li> <li>➤ Control and flow of medical record.</li> <li>➤ Registration of medico legal cases.</li> <li>➤ Verification of medical record and medical record number.</li> <li>➤ Storing and retrieval of data.</li> <li>➤ Scanning and filing of record.</li> <li>➤ Microfilming.</li> <li>➤ Maintaining Master Patient Index (MPI)</li> </ul> <p><b>Electronic Medical Records</b></p> <ul style="list-style-type: none"> <li>➤ Transition of Medical record.</li> <li>➤ Functionality, usability, file sharing, Clinical decision support systems, Clinical physician order entry system.</li> <li>➤ Patient monitoring system.</li> </ul>	8 Weeks	Compulsory rotation

	<p><b>ICD / Medical coding system</b></p> <ul style="list-style-type: none"> <li>➤ Understanding the usage of medical coding in clinical information system</li> <li>➤ Understanding the maintenance, policies and procedures to ensure the accuracy of and usage of coded data.</li> <li>➤ To code the diagnosis and procedure mentioned on the medical record/bills by using relevant coding standards (ICD-9, ICD-10, CPT, etc.).</li> <li>➤ Familiar with data integrity and coding audits to understand the guidelines for medical coding compliance.</li> </ul> <p><b>Data Privacy, security and confidentiality</b></p> <ul style="list-style-type: none"> <li>➤ Application of data security and confidentiality measuring concepts to protect patient health information.</li> <li>➤ Application of information system security policies.</li> <li>➤ Maintenance and monitoring of data storage systems.</li> </ul>		
Radiology	<p><b>Radiology Information Systems</b></p> <ul style="list-style-type: none"> <li>➤ Patient tracking.</li> <li>➤ Scheduling.</li> <li>➤ Result reporting.</li> <li>➤ Image tracking.</li> <li>➤ PACS.</li> <li>➤ DICOM.</li> </ul>	4 Weeks	Elective rotation

Laboratory management systems	<b>Lab information systems management</b> <ul style="list-style-type: none"> <li>➤ Electronic Reporting of Orders, Result, Schedules, billings.</li> <li>➤ Administrative information integration.</li> <li>➤ inventory management.</li> </ul>		Elective rotation
Drug management systems (Pharmacy)	<b>Order processing, Drug inventory management and Patient Drug Profiles</b> <ul style="list-style-type: none"> <li>➤ Inventory of all pharmaceutical products.</li> <li>➤ Alerts when the quantity of an item is below a set quantity.</li> <li>➤ Automatic electronic ordering system.</li> <li>➤ Patient profiles containing details of their current and past medications.</li> </ul>		Elective rotation
Quality and Patient Safety	<b>Health care quality and Improvements for quality issues</b> <ul style="list-style-type: none"> <li>➤ Provide support and assist in facility quality management and performance improvement programs.</li> <li>➤ Analyze clinical data to identify trends that demonstrate quality, safety and effectiveness of health care.</li> <li>➤ Application of quality management knowledge and principles.</li> <li>➤ List key performance indicators, measure using quality tools.</li> <li>➤ Outcome measurements such as patient satisfaction.</li> <li>➤ Support the quality assessment process and management tools like benchmarking, statistical quality control and risk assessment.</li> </ul>		Elective rotation
Bed Management	<b>Bed Management System</b> <ul style="list-style-type: none"> <li>➤ Preparing drafts for the systems, instructions and regulations intended for the organizing the bed management departments in the hospitals, and in coordination with the competent departments.</li> <li>➤ Providing Technical supervision of the Bed Management Program in directorates and hospitals, in coordination with the health departments.</li> </ul>		Elective rotation

	<ul style="list-style-type: none"> <li>➤ Proposing the information system needed for the Bed Management system, and participating in its development, aiming to achieve fast and accurate access to information in a timely manner, in coordination with the Information Technology General Department and Statistics General Department.</li> <li>➤ Studying and analysing statistical data and medical indicators, for use in evaluating the medical services provided, with a view to learn about the activities of such services, promote them, estimate their strengths and weaknesses, and submit the propositions needed for the work development and following up their implementation in case they are approved.</li> </ul>		
Claims, Billing and Reimbursement (Insurance)	<ul style="list-style-type: none"> <li>➤ Manage the use of clinical data required in prospective payment and reimbursement system in health care delivery.</li> <li>➤ Participate in the meetings for revenue cycle management.</li> <li>➤ Check the accuracy of billing through coding techniques.</li> <li>➤ Assist in claim management and billing reconciliation process.</li> <li>➤ Orientation to the audit processes.</li> </ul>		Elective rotation
Statistics	<p><b>Reporting &amp; Statistical analysis of available data</b></p> <ul style="list-style-type: none"> <li>➤ Identify electronic reporting mechanism of communicable diseases.</li> <li>➤ Generate reports of epidemic, endemic and pandemic disease outbreak.</li> <li>➤ Assist in utilizing the reporting mechanisms.</li> </ul>		Elective rotation
OPD	<ul style="list-style-type: none"> <li>➤ Appointment management system</li> </ul>		Elective rotation
Medical Coordination	<p><b>Referral Information System</b></p> <ul style="list-style-type: none"> <li>➤ get acquainted with various referral forms for administrative, clinical and quality improvement purposes.</li> <li>➤ Collect and Store follow up forms from secondary and tertiary hospitals.</li> <li>➤ Identify potential for integrating referral systems</li> </ul>		Elective rotation



## Primary Healthcare Centres Rotation

Rotation	Skills & Tasks	Duration	Note
Public Health Monitoring.	<p><b>Monitoring</b></p> <ul style="list-style-type: none"> <li>➤ Types of registers.</li> <li>➤ Preparing, maintaining and utilizing patient information.</li> </ul> <p><b>Commonly prevalent chronic diseases.</b></p> <p><b>Reporting of Communicable diseases.</b></p> <ul style="list-style-type: none"> <li>➤ Generating electronic reports of commonly prevalent and communicable diseases.</li> <li>➤ Identify electronic reporting mechanisms and assist the site medical officer with data management.</li> </ul> <p><b>Public health hazard</b></p> <ul style="list-style-type: none"> <li>➤ Identify electronic reporting mechanisms and assist the site medical officer with data management.</li> </ul> <p><b>Birth /Death Registry /Immunization registry</b></p> <ul style="list-style-type: none"> <li>➤ identify how immunization programs and registries help in monitoring data.</li> </ul>	1 Week	The total duration for PHC rotation is 4 weeks.
Medical Records.	<p><b>Data, Information and Structure</b></p> <ul style="list-style-type: none"> <li>➤ Understanding the system architecture, design and data flow.</li> <li>➤ Orientation to paper-based and electronic patient health records.</li> <li>➤ Document archival, retrieval, follow up.</li> <li>➤ Understanding the sequence and format of health record placement.</li> </ul> <p><b>Data Entry Protocol</b></p> <ul style="list-style-type: none"> <li>➤ Perform patient registration activities.</li> <li>➤ File generation.</li> <li>➤ Application of data security and confidentiality concepts to protect patient health information.</li> </ul>	1 Week	

	<ul style="list-style-type: none"> <li>➤ Application of information system security policies.</li> </ul> <p><b>Data Storage</b></p> <ul style="list-style-type: none"> <li>➤ Data storage and retrieval.</li> <li>➤ Maintenance and monitoring of data.</li> <li>➤ Storage systems.</li> <li>➤ Database querying and use of data.</li> <li>➤ mining techniques to facilitate the information retrieval.</li> </ul>		
Referral System.	<p><b>Referral Forms</b></p> <ul style="list-style-type: none"> <li>➤ Get acquainted with various referral forms for administrative, clinical and quality improvement purposes.</li> </ul> <p><b>Follow ups</b></p> <ul style="list-style-type: none"> <li>➤ Collect and Store follow up forms from secondary and tertiary hospitals.</li> </ul> <p><b>Feedback documentation</b></p> <ul style="list-style-type: none"> <li>➤ Identify potential for integrating referral systems.</li> </ul>	1 Week	
Lab and Inventory Management.	<p><b>Lab information systems Management</b></p> <ul style="list-style-type: none"> <li>➤ Assist PHC staff with inventory management.</li> <li>➤ Drug management.</li> </ul>	1 Week	

## Health Cluster Rotation

Rotation	Skills & Tasks	Duration	Note
Information Technology	<p><b>Health Applications management</b></p> <ul style="list-style-type: none"> <li>➤ <b>ICD / Medical coding system:</b> Understanding the usage of medical coding in clinical information system.</li> <li>➤ <b>Telemedicine:</b> sing computer and communication system to promote remote consultations and monitoring.</li> <li>➤ <b>PHCs system:</b> Identify and get familiar with the available components and technological resources on site.</li> <li>➤ Understand the design of the PHCs Information System.</li> <li>➤ Understand the different modules of the information system used at different departments.</li> <li>➤ <b>Hospital Information system:</b> Understand the design of the HIS Information System understand the different modules of the information system used at different departments.</li> </ul> <p><b>Knowledge management</b></p> <ul style="list-style-type: none"> <li>➤ Collect data from different his sources, analysis data and visualize data on dashboards.</li> </ul>	8 weeks	

## Vendor Companies Rotation

Rotation	Skills & Tasks	Duration	Note
	To be discussed with the academic department based on the field of the company.	12 Weeks	Optional rotation and the 12 weeks duration will be deducted from the duration allocated for hospital rotation.

