CONCEPT

Health Information Systems and Digital Health Management: EHR, Interoperability and Adoption

26 – 30 April 2027
Dubai - Five-star CBD venue



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Ref: 164_10340 **Date:** 26 – 30 April 2027 **Location:** Dubai - Five-star CBD venue **Fees:** 21450 SAR

Introduction:

Health information systems often fail to pay back because modules are bought before workflows are defined, interfaces between the EHR, laboratory and imaging systems are patched together, and adoption stalls once go-live support leaves. This Core Concept course gives health IT and HIS programme managers a practical method to map hospital information system modules to clinical and administrative workflows, specify interoperability with HL7 and FHIR, govern health data and access, and plan selection, implementation and adoption. Participants produce an HIS Implementation and Digital Maturity Roadmap for their own facility.

Course Objectives:

- Map hospital information system modules, from registration and the EHR to laboratory, radiology and pharmacy systems, against the clinical and administrative workflows they support
- Specify interoperability requirements using HL7 v2 messages, CDA documents, FHIR resources, DICOM imaging and coding systems such as ICD-10, LOINC and SNOMED CT
- Set up health data governance, role-based access and audit controls for patient records across the EHR and connected systems
- Plan telehealth services, patient portals, clinical decision support and analytics use cases with clear owners, data sources and benefit measures
- Run an HIS selection and implementation programme, from requirements and vendor demonstrations to data migration, go-live readiness and adoption support
- Assess digital maturity against the capabilities HIMSS describes for EMRAM and build a staged improvement roadmap

Target Audience:

- Managers who run health IT departments and keep hospital information systems, interfaces and support services available
- Programme and project managers who lead EHR or HIS selection, implementation, upgrade or replacement
- Hospital administrators accountable for the operational and financial return on digital health investments
- Health information and medical records managers responsible for documentation, coding and record integrity
- Clinical informatics leads who translate clinician needs into system configuration and adoption plans
- Data and analytics managers who supply reporting and dashboards from EHR and departmental systems

Course Outline:

Day 1: Health Information Systems Landscape and Current-State Assessment

- Hospital Information System Architecture: Administrative, Financial and Clinical Components
- EHR versus EMR: Scope, Record Ownership and Care-Setting Coverage
- Departmental Systems Map: LIMS, RIS, PACS, Pharmacy and ERP Interfaces
- Digital Health Drivers: Care Coordination, Documentation Burden and Cost Pressures
- HIS Current-State Inventory Template and Application Portfolio Review

Day 2: Interoperability Standards and Health Data Exchange

- HL7 v2 Messaging: ADT, Orders and Results Interface Flows
- HL7 CDA Documents versus FHIR Resources, Profiles and Implementation Guides
- FHIR RESTful API Access for Portals, Mobile Apps and Third-Party Applications
- DICOM Imaging Exchange Between Modalities, PACS and the EHR
- Coding and Terminology Mapping with ICD-10, LOINC and SNOMED CT

Day 3: Clinical and Administrative Workflows, Telehealth and Decision Support

- Registration-to-Billing Workflow Mapping Across HIS Modules
- Computerised Provider Order Entry and Results Workflow Design
- Telehealth Service Models and Patient Portal Functions: Access, Messaging and Scheduling
- Clinical Decision Support Governance: Rule Requests, Alert Review and Override Monitoring
- Health Analytics Use Cases: Registries, Operational Reports and Population Dashboards

Day 4: Health Data Governance, Privacy, Security and Digital Maturity

- Health Data Governance Council, Data Ownership Matrix and Data Quality Rules
- Role-Based Access, Break-Glass Procedures and Audit Log Review for Patient Records
- Ransomware and Downtime Readiness: Read-Only Access and Paper Fallback Procedures
- Consent, Patient Data Sharing and Breach Notification Workflow Design
- HIMSS EMRAM Stages and Capability Gap Scoring for Digital Maturity

Day 5: HIS Selection, Implementation Case Study and Roadmap

- Case Study: Requirements Catalogue, Vendor Demonstration Scripts and Scoring Matrix
- Case Study: Data Migration Plan, Interface Testing and Go-Live Readiness Checklist
- Clinician Adoption Plan: Super-Users, Training Paths and Usability Feedback Loops
- Post-Go-Live Benefits Tracking with Adoption and Documentation Metrics
- HIS Implementation and Digital Maturity Roadmap Drafting and Peer Review

Skills You Will Gain:

- HIS Architecture Mapping
- Healthcare Interoperability Specification
- Clinical Terminology Mapping
- Health Data Governance
- Patient Record Access Control
- Clinical Decision Support Oversight
- HIS Vendor Evaluation
- Digital Maturity Assessment

Why Attend This Course:

- Return with an HIS Implementation and Digital Maturity Roadmap for your own hospital or clinic network
- Write interface and integration requirements that vendors and integration teams can build and test against
- Reduce go-live risk with migration, downtime and adoption plans agreed before contracts are signed
- Compare EHR and digital health programmes with peers from public, private and academic providers in several health systems

Conclusion:

Health information systems return value when modules, standards, data governance and adoption are managed together. The course moves from the HIS landscape and a current-state inventory, through HL7, FHIR, DICOM and clinical terminologies, to workflows, telehealth, patient portals and clinical decision support, then to data governance, access control, downtime readiness and digital maturity. The final day applies this to an HIS selection and implementation case and produces a roadmap ready for executive review.