Advanced Healthcare Information Management and Informatics Training Course

14 - 18 Dec 2026

Madrid

5900 € (Per Person)

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Course Introduction / Overview:

The rapid digital health transformation of the global healthcare landscape demands a new breed of professionals skilled in both information management and clinical informatics. This course provides a comprehensive exploration of managing health information systems, ensuring data integrity, and leveraging health data analytics for improved patient outcomes and operational efficiency. Moving beyond theoretical concepts, the curriculum delves into the practical application of principles championed by pioneers like Dr. William Edward "Ed" Hammond, a key figure in the development of medical informatics. We will explore core topics discussed in seminal texts such as "Biomedical Informatics: Computer Applications in Health Care and Biomedicine," examining the entire lifecycle of health data from creation to strategic use in clinical decision support systems. At BIG BEN Training Center, we have designed this program to equip participants with the critical skills needed to navigate the complexities of electronic health records, data governance, and healthcare cybersecurity. This training is essential for anyone aiming to lead and innovate within the evolving intersection of healthcare, technology, and data, ensuring they can contribute effectively to building a more efficient, secure, and patient-centered healthcare ecosystem.

Target Audience / This training course is suitable for:

- Healthcare Administrators and Managers.
- Health Information Management (HIM) Professionals.
- Clinical Analysts and Data Specialists.
- Healthcare IT Professionals and System Administrators.
- Physicians, Nurses, and other Clinical Staff.
- Public Health Officials.
- Healthcare Consultants.
- Medical Coders and Billing Specialists.
- Quality Improvement and Patient Safety Officers.
- Compliance and Privacy Officers in Healthcare.

Target Sectors and Industries:

- Hospitals and Integrated Health Systems.
- Private Clinics and Medical Practices.
- Public Health Organizations and Agencies.
- Health Insurance and Payer Organizations.
- Pharmaceutical and Life Sciences Companies.
- Healthcare Technology and Software Vendors.
- Medical Research and Academic Institutions.
- Governmental Health Ministries and Regulatory Bodies.
- Long-Term Care and Rehabilitation Facilities.
- Telehealth and Digital Health Service Providers.

Target Organizations Departments:

- Information Technology (IT) and Information Services (IS).
- Health Information Management (HIM) and Medical Records.
- Clinical Operations and Patient Care Services.
- Quality Assurance and Performance Improvement.
- Finance, Billing, and Revenue Cycle Management.
- Compliance, Legal, and Risk Management.
- Data Analytics and Business Intelligence.
- Research and Development.
- Strategic Planning and Administration.
- Nursing Informatics and Clinical Informatics Teams.

Course Offerings:

By the end of this course, the participants will have able to:

- Develop a strategic vision for health information systems within a healthcare organization.
- Implement robust data governance frameworks to ensure data quality, privacy, and security.
- Analyze the architecture and functionality of Electronic Health Record (EHR) systems.
- Utilize health data analytics and visualization tools to support evidence-based decision-making.
- Navigate the legal and ethical complexities of health informatics, including HIPAA compliance.
- Evaluate and apply healthcare data standards for system interoperability, such as HL7 and FHIR.
- Manage projects for the implementation and optimization of health information technology.
- Assess the impact of emerging technologies like AI and telehealth on healthcare delivery.
- Enhance clinical workflows through the effective use of clinical decision support systems.
- Lead change management initiatives related to digital health transformation.

Course Methodology:

The training methodology at BIG BEN Training Center is designed to be immersive, interactive, and directly applicable to the professional challenges faced by participants. We move beyond traditional lecture-based formats to foster a dynamic learning environment where knowledge is co-created and reinforced through practical application. The course heavily relies on real-world case studies, allowing participants to analyze successful and unsuccessful health IT implementations, dissect complex data security breaches, and strategize solutions for interoperability challenges. Collaborative group projects and team-based problem-solving sessions are central to our approach, encouraging participants to share diverse perspectives and develop communication and leadership skills. Interactive workshops will provide hands-on experience with data analysis concepts and system evaluation frameworks. Expert-led discussions will explore the nuances of healthcare data governance and the ethical dilemmas in health informatics. Continuous feedback from the instructor and peers is integrated throughout the five days, ensuring a deep and lasting understanding of the material and empowering participants to confidently apply their new skills in their respective roles.

Course Agenda (Course Units):

Unit One: Foundations of Health Informatics and Information Management

- The Evolution of Health Informatics and its Core Concepts.
- Distinguishing Between Health Information Management (HIM) and Health Informatics.
- The Structure of the Healthcare Ecosystem and Information Flow.
- Key Terminology in Clinical and Public Health Informatics.
- The Legal and Regulatory Landscape: HIPAA, HITECH, and GDPR.
- Ethical Principles in Managing Patient Data.
- The Role of Professional Organizations in Health Informatics.

Unit Two: Health Information Systems and Technologies

- Deep Dive into Electronic Health Records (EHR) and Electronic Medical Records (EMR).
- Components of Clinical Decision Support Systems (CDSS).
- Computerized Physician Order Entry (CPOE) and e-Prescribing Systems.
- Exploring Telehealth, mHealth, and Remote Patient Monitoring Technologies.
- Healthcare Interoperability: Standards like HL7, FHIR, and DICOM.
- Understanding Health Information Exchange (HIE) Models.
- System Selection, Implementation, and Optimization Strategies.

Unit Three: Healthcare Data Management and Governance

- The Healthcare Data Lifecycle: From Creation to Archiving.
- Principles of Data Quality and Integrity in Clinical Settings.
- Developing a Robust Healthcare Data Governance Framework.
- Master Data Management (MDM) for Patient and Provider Information.
- Data Warehousing and Clinical Data Repositories.
- Cybersecurity Threats and Data Protection Strategies in Healthcare.
- Disaster Recovery and Business Continuity Planning for Health IT.

Unit Four: Health Data Analytics and Population Health Management

- Introduction to Healthcare Analytics: Descriptive, Predictive, and Prescriptive.
- Data Mining and Statistical Analysis Techniques for Clinical Data.
- Data Visualization Tools and Techniques for Healthcare Reporting.
- The Role of Informatics in Population Health Management.
- Using Data for Quality Improvement and Patient Safety Initiatives.
- Informatics in Revenue Cycle Management (RCM).
- Fundamentals of Big Data and its Application in Healthcare.

Unit Five: Strategic Leadership and Future Trends in Health Informatics

- Project Management Methodologies for Health IT Projects.
- Change Management and User Adoption Strategies.
- Nursing Informatics and its Impact on Patient Care.
- The Influence of Artificial Intelligence and Machine Learning in Diagnostics.
- Genomics, Personalized Medicine, and their Informatics Requirements.
- Consumer Health Informatics and Patient Engagement.
- The Future of Digital Health and Preparing for Upcoming Innovations.

FAQ:

Qualifications required for registering to this course?

There are no requirements.

How long is each daily session, and what is the total number of training hours for the course?

This training course spans five days, with daily sessions ranging between 4 to 5 hours, including breaks and interactive activities, bringing the total duration to 20 - 25 training hours.

Something to think about:

As artificial intelligence becomes more integrated into clinical decision support systems, what ethical frameworks must be established to balance algorithmic efficiency with the nuanced, human-centric art of patient care?

What unique qualities does this course offer compared to other courses?

This course distinguishes itself by bridging the critical gap between high-level strategic management and the technical intricacies of health informatics. While many programs focus on either the IT aspects or the administrative overview, our curriculum is meticulously designed to integrate both, producing well-rounded professionals who can lead digital health transformation initiatives with a holistic understanding. We emphasize a "systems thinking" approach, teaching participants not just how a technology works, but how it impacts clinical workflows, patient safety, revenue cycles, and regulatory compliance. The course content is heavily rooted in practical application, using case studies drawn from real-world healthcare challenges rather than abstract theoretical models. Participants will not only learn about data governance frameworks but will also engage in exercises to design one. They will not only hear about interoperability standards but will also analyze scenarios where a lack of them led to adverse outcomes. This focus on pragmatic, problem-based learning ensures that the skills acquired are immediately transferable to the workplace, empowering participants to drive meaningful improvements in their organizations from day one.