Smart Health Systems Training Course

Professional Development Training Course Outline

Category	Public Health	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Smart Health Systems Training Course is designed to equip healthcare professionals, digital health leaders, ICT officers, hospital administrators, policymakers, and innovators with advanced knowledge and practical skills in Digital Health Transformation, Artificial Intelligence (AI) in Healthcare, Electronic Medical Records (EMR), Health Data Analytics, Telemedicine, Internet of Medical Things (IoMT), Cybersecurity, and Smart Hospital Technologies. The course focuses on emerging global healthcare trends, enabling participants to understand how intelligent technologies are revolutionizing patient care, healthcare operations, disease surveillance, diagnostics, and healthcare decision-making. Participants will gain hands-on exposure to health informatics systems, cloud-based healthcare platforms, predictive analytics, machine learning applications, interoperability standards, and digital patient engagement solutions.

With healthcare systems rapidly adopting AI-driven healthcare solutions, big data analytics, blockchain in healthcare, wearable technologies, remote patient monitoring, and smart clinical decision support systems, organizations require professionals capable of implementing secure, efficient, and patient-centered digital ecosystems. This training delivers practical competencies for building resilient and sustainable smart healthcare infrastructures aligned with global standards for healthcare innovation, digital transformation, patient safety, data governance, precision medicine, and healthcare automation. Through real-world case studies, simulations, and applied learning methodologies, participants will acquire strategic and technical expertise to drive digital healthcare excellence.

Programme Curriculum

Smart Health Systems Training Course

Introduction

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Course Objectives

By the end of the training, participants will be able to:

1. Understand the fundamentals of Smart Health Systems and Digital Health Transformation.
2. Apply Artificial Intelligence (AI) and Machine Learning in Healthcare Operations.
3. Implement effective Electronic Health Records (EHR/EMR) Management Systems.
4. Analyze healthcare data using Big Data Analytics and Predictive Healthcare Intelligence.
5. Develop secure healthcare ecosystems using Healthcare Cybersecurity and Data Privacy Frameworks.
6. Integrate Internet of Medical Things (IoMT) and Wearable Health Technologies.
7. Enhance healthcare delivery through Telemedicine and Virtual Healthcare Platforms.
8. Apply Blockchain Technology for Secure Health Information Exchange.
9. Improve patient outcomes using Clinical Decision Support Systems (CDSS).
10. Understand Healthcare Interoperability Standards including HL7 and FHIR.
11. Design smart hospital strategies using Cloud Computing and Healthcare Automation.
12. Strengthen healthcare planning through Digital Health Governance and Innovation Management.
13. Evaluate emerging trends in Precision Medicine, Robotics, and Smart Healthcare Ecosystems.

Target Audience

1. Healthcare Administrators and Hospital Managers
2. Health Information Officers and HIM Professionals
3. Medical Doctors and Clinical Practitioners
4. ICT Officers and Health Systems Engineers
5. Public Health Professionals and Researchers
6. Digital Health Consultants and Innovators
7. Government Health Policymakers and Regulators
8. NGOs, Development Agencies, and Health Program Managers

Course Modules

Module 1: Introduction to Smart Health Systems

- Evolution of Digital Healthcare
- Smart Hospitals and Connected Care
- Healthcare Digital Transformation Strategies
- Global Health Technology Trends
- Smart Healthcare Infrastructure
- **Case Study:** Implementation of smart hospital systems improving patient workflow and operational efficiency.

Module 2: Electronic Health Records (EHR/EMR) Systems

- EHR and EMR Architecture
- Health Information Management
- Digital Patient Records
- Interoperability and Data Exchange
- EHR Implementation Challenges
- **Case Study:** Successful deployment of a national electronic medical records system for public healthcare facilities.

Module 3: Artificial Intelligence and Machine Learning in Healthcare

- AI-Powered Diagnostics
- Predictive Healthcare Analytics
- Machine Learning Applications
- Intelligent Clinical Decision Support
- AI Ethics in Healthcare
- **Case Study:** Use of AI algorithms for early disease detection and medical imaging analysis.

Module 4: Telemedicine and Remote Patient Monitoring

- Virtual Healthcare Platforms
- Telehealth Technologies
- Remote Diagnostics and Monitoring
- Mobile Health Applications
- Digital Patient Engagement
- **Case Study:** Telemedicine adoption in rural healthcare systems to improve healthcare accessibility.

Module 5: Health Data Analytics and Big Data

- Healthcare Data Visualization
- Predictive Modeling in Healthcare
- Population Health Analytics
- Real-Time Health Surveillance
- Data-Driven Healthcare Decisions
- **Case Study:** Application of big data analytics for epidemic prediction and healthcare planning.

Module 6: Internet of Medical Things (IoMT) and Smart Devices

- Wearable Health Technologies
- Smart Medical Sensors
- Connected Healthcare Devices

- IoMT Architecture and Integration
- Real-Time Patient Monitoring Systems
- **Case Study:** IoMT solutions used for chronic disease monitoring and elderly care management.

Module 7: Healthcare Cybersecurity and Data Privacy

- Healthcare Information Security
- Cyber Threats in Healthcare
- Data Privacy Regulations
- Secure Health Information Exchange
- Risk Management and Compliance
- **Case Study:** Analysis of healthcare cyberattack incidents and mitigation strategies.

Module 8: Emerging Technologies and Smart Healthcare Innovation

- Blockchain in Healthcare
- Precision Medicine
- Robotics and Automation
- Cloud Computing in Healthcare
- Future Trends in Smart Health Systems
- **Case Study:** Blockchain-enabled healthcare records improving security and transparency.

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

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Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com