

Semester	III	Specialization	Health Care
Course Code	306 HM	Type	Generic – Core
Course Title	Information Technology in Healthcare		

Course Objectives:

1	Use of Information technology in Healthcare industry.
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2	To acquaint the students with Hospital Information Systems.
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Syllabus:

Unit Number		Number of Sessions
1	Introduction to information: Scope, Components of hardware and software. Health Care Informatics: Introduction, Standardized languages in practice. Health IT Architecture: Information Technology architecture models in healthcare organizations, Service-oriented structures. Concept of biosignal processing and Medical Imaging.	2 + 4
2	Computer Networks- LAN, WAN, ISDN, VSAT. The Internet- structure, role in Medicine. Mobile IT devices in healthcare. Telemedicine and applications- Architecture of major telemedicine systems in India. Information compression, storage and transmission standards, wireless telemetry,	2 + 4
3	Necessity of standards for electronic health, security issues, cyber laws, ethical and medico legal issues in patient information exchange. Healthcare Information Regulations & Standards: Legal Aspects of Managing Health information, Health records and Privacy, Health Level standards- HL7. Integrated Health information Systems.	2 + 4
4	Introduction to medical databases: Electronic Medical Record, Electronic Health Record. National and International regulations. Data collection, Data analysis, Data Presentation in Medical systems. Systems Implementation and Integration, Interface Engine. Patient registries/patient portals/Health information exchange.	2 + 4
5	Hospital Information Systems – Definition, Structure and Application, system Advantages. Nursing Informatics, Automated clinical laboratory systems. Pharmacy information system. Electronic Health- overview, implementation of various systems.	6

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