1. **Subject Title:** **Clinical Information Systems**

2. **Subject Code:** **HIT-708**

   a. **Contact Hours** **60**
   b. Self Study and Assignments 30
   c. Credit Points 06

Subject description and learning objectives

Know the design principles of clinical information systems, and understand the function of each component: patient database, controlled vocabulary, event monitor, and user interfaces.

Understand the cost/benefit issues involving health care information systems, in particular, the role of automated care plans and practice guidelines. Know about basic health informatics including electronic health / medical records (EHR/EMR), telehealth (e-health and telemedicine), medical imaging, evidence- based medicine (EBM), standards, patient privacy and security issues. Integrated HIS including Clinical Decision Support Systems.

Week	Hours	Units	Content
15	1		Introduction of Health Record Management - Evolution of Health care, Improvement of Records through hospital standardization, improvement of HR through organization, and accreditation
15	2		The Health Record – Purpose , Ownership, Uses of the medical /Health Records, Value of the Health Record, responsibility for the Medical record, Information flow to Medical Record, Required characteristics of Entries in Health Record
15	3		Content of Health Record – Administrative data- admission /Discharge Record, Consent, Clinical data- Medical history, Physical Examination, Physician orders, Progress notes, Pathology and radiological report, Consultation report, Operation record, Anesthesia Record, Nursing Notes & Record, TPR or Graphic Record, SOMR, POMR, Integrated Medical records
15	4		Health Information Exchange and Interoperability – principles, challenges, methods
15	5		Electronic Medical Record – Definition, EMR Issues, Interoperabilty, Security, Privacy, Social and organizational Barriers, Technology limitation, Preservation of EMR, Customization of EMR, Privacy policy, Accessibility of Health Record, CDSS (Clinical decision System), Integration and Interfacing
16	1		Selection software and Hardware for EHR, Cost effectiveness and Quality assurance, PACS (Picture Archival communication System)
16	2	1	Health Record Registration – Communicable Diseases, Notifiable disease report, Morbidity report, Birth and Death Registration

Week	Hours	Units	Content
16	2	2	Introduction to Telemedicine – Conceptual basis of telemedicine and its role in decision making, improving delivery of patient care and in education, medicine and healthcare
16	3	1	Role of Telemedicine – In distributed care, support services (laboratory medicine, imaging services)
16	3	2	Technology – Issues and parameters relating to telemedicine
16	4	1	Systems – Functioning of e-health and wireless technology used in telemedicine
16	4	2	Standards – Importance of telecommunication and imaging standards in telemedicine
16	5	1	Teleconferencing and Tele-education
16	5	2	Case Study