



Bachelor of Science in Nursing (B.Sc. Nursing) (Semester-II)

Course Code	UM02CHNT05	Title of the Course	Health/Nursing Informatics & Technology
Total Credits of the Course	02	Contact Credit Hours	40

Course Specific Objectives	This course is designed to equip novice nursing students with knowledge and skills necessary to deliver efficient informatics-led health care services.
Course Objectives	<ol style="list-style-type: none"> 1. Develop a basic understanding of computer application in patient care and nursing practice. 2. Apply the knowledge of computer and information technology in patient care and nursing education, practice, administration and research. 3. Describe the principles of health informatics and its use in developing efficient healthcare. 4. Demonstrate the use of information system in healthcare for patient care and utilization of nursing data. 5. Demonstrate the knowledge of using Electronic Health Records (EHR) system in clinical practice. 6. Apply the knowledge of interoperability standards in clinical setting. 7. Apply the knowledge of information and communication technology in public health promotion. 8. Utilize the functionalities of Nursing Information System (NIS) system in nursing. 9. Demonstrate the skills of using data in management of health care. 10. Apply the knowledge of the principles of digital ethical and legal issues in clinical practice. 11. Utilize evidence-based practices in informatics and technology for providing quality patient care. 12. Update and utilize evidence-based practices in nursing education, administration, and practice..

T – Theory, P/L – Lab

Unit	Time (Hrs)		Content	Weightage
	T	P/L		
I	10	15	Introduction to computer applications for patient care delivery system and nursing practice <ul style="list-style-type: none"> • Use of computers in teaching, learning, research and nursing practice 	25%
			<ul style="list-style-type: none"> • Windows, MS office: Word, Excel, Power Point • Internet • Literature search • Statistical packages • Hospital management information system 	
II	4	5	Principles of Health Informatics <ul style="list-style-type: none"> • Health informatics – needs, objectives and limitations • Use of data, information and knowledge for more effective healthcare and better health 	10%
III	3	5	Information Systems in Healthcare <ul style="list-style-type: none"> • Introduction to the role and architecture of information systems in modern healthcare environments • Clinical Information System (CIS)/Hospital information System (HIS) 	7.5%



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Syllabus with effect from the Academic Year 2021-2022

Unit	Time (Hrs)		Content	Weightage
IV	4	4	Health Records <ul style="list-style-type: none"> Challenges of capturing rich patient histories in a computable Form Latest global developments and standards to enable lifelong electronic health records to be integrated from disparate systems. 	10%
V	3		Patient Safety & Clinical Risk <ul style="list-style-type: none"> Relationship between patient safety and informatics Function and application of the risk management process 	7.5%
VI	3	6	Clinical Knowledge & Decision Making <ul style="list-style-type: none"> Role of knowledge management in improving decision-making in both the clinical and policy contexts Systematized Nomenclature of Medicine, Clinical Terms, SNOMED CT to ICD-10-CM Map, standardized nursing terminologies (NANDA, NOC), Omaha system. 	7.5%
VII	3		eHealth: Patients and the Internet <ul style="list-style-type: none"> Use of information and communication technology to improve or enable personal and public healthcare Introduction to public health informatics and role of nurses 	7.5%
VIII	3	5	Using Information in Healthcare Management <ul style="list-style-type: none"> Components of Nursing Information system(NIS) Evaluation, analysis and presentation of healthcare data to inform decisions in the management of health-care organizations 	7.5%
IX	4		Information Law & Governance in Clinical Practice <ul style="list-style-type: none"> Ethical-legal issues pertaining to healthcare information in contemporary clinical practice <ul style="list-style-type: none"> Ethical-legal issues related to digital health applied to nursing 	10%
X	3		Healthcare Quality & Evidence Based Practice <ul style="list-style-type: none"> Use of scientific evidence in improving the quality of healthcare and technical and professional informatics standards 	7.5%

Teaching/ Learning Activities	<ul style="list-style-type: none"> Lecture cum Discussion Demonstration on simulated NIS software Visit to health informatics department of the hospital to understand use of healthcare data in decision making Case discussion Role play Case study
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Assessment Methods	<ul style="list-style-type: none">• Essay• Short answer• Objective type• Assessment of skills using checklist
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SN	Details of Evaluation	Weightage
1	University Examination Conducted by the college* (End semester college exam)	25 marks

Course Outcomes: Having completed this course, the learner will be able to	
1	Describe the importance of computer and technology in patient care and nursing practice
2	Demonstrate the use of computer and technology in patient care, nursing education, practice, administration and research.
3	Describe the principles of health informatics Explain the ways data, knowledge and information can be used for effective healthcare
4	Describe the concepts of information system in health Demonstrate the use of health information system in hospital setting
5	Explain the use of electronic health records in nursing practice Describe the latest trend in electronic health records standards and interoperability
6	Describe the advantages and limitations of health informatics in maintaining patient safety and risk management
7	Explain the importance of knowledge management Describe the standardized languages used in health informatics
8	Explain the use of information and communication technology in patient care Explain the application of public health informatics
9	Describe the functions of nursing information system Explain the use of healthcare data in management of health care organization
10	Describe the ethical and legal issues in healthcare informatics Explains the ethical and legal issues related to nursing informatics
11	Explain the relevance of evidence-based practices in providing quality healthcare

Suggested References:	
SN	References
1	Nurse as educator, Principles of Teaching and Learning for Nursing Practice Susan B. Bastable, Jones & Bartlett. 3rd ed.
2	Nursing Informatics & the Foundation of Knowledge Dee McGonigle , Jones & Bartlett. 1st ed, 2010
3	A Textbook of Communication & Educational Technology Neelam Kumari , Pee Vee 2015
4	Strategic Planning for Nurses, Change Management in Health Care Michele V. Sare , Jones & Bartlett. 2011

