



SILVER OAK UNIVERSITY

Silver Oak College of Nursing Bachelor of Science (Nursing)

Course Name: Health / Nursing Informatics & Technology

Course Code: 1060323107

Semester: 2nd

Prerequisite:

A foundational understanding of healthcare systems, terminology, processes, and practices is helpful for integrating technology into healthcare settings effectively. Strong communication skills are essential for collaborating with healthcare professionals, technology experts, and patients to improve healthcare delivery through informatics solutions.

Course Objective:

1. To equip novice nursing students with knowledge and skills necessary to deliver efficient informatics-led health care services.
2. To understand how information technology can be used to improve the efficiency, quality, and safety of healthcare delivery.
3. To apply technology and data analysis to effectively manage healthcare information, streamline communication between healthcare providers, and enhance patient outcomes.
4. To provide students with the knowledge and skills needed to effectively use technology in clinical practice, promote evidence-based decision-making, and improve patient care

Teaching Scheme:

Teaching Scheme				
L	T	P	Contact Hours	Credit
2	2	0	4	3

Content:

Unit No.	Contents	Teaching Hours	Weightage %
1	Introduction to computer applications for patient care delivery system and nursing practice Use of computers in teaching, learning, research and nursing practice Lecture Discussion Practice session Supervised clinical practice on EHR use Participate in data analysis using statistical package with statistician	10	25
2	Principles of Health Informatics Health informatics- needs, objectives and limitations Use of data, information and knowledge for more	4	10

	<p>effective healthcare and better health</p> <p>Lecture Discussion</p> <p>Practical session</p> <p>Work in groups with health informatics team in a hospital to extract nursing data and prepare a report</p>		
3	<p>Information Systems in Healthcare</p> <p>Introduction to the role and architecture of information systems in modern healthcare environments</p> <p>Clinical Information System (CIS)/Hospital information System (HIS)</p> <p>Lecture Discussion</p> <p>Demonstration</p> <p>Practical session</p> <p>Work in groups with nurse leaders to understand the hospital information system</p>	3	7
4	<p>Shared Care & Electronic Health Records</p> <p>Challenges of capturing rich patient histories in a computable form</p> <p>Latest global developments and standards to enable lifelong electronic health records to be integrated from disparate systems.</p>	4	10
5	<p>Patient Safety & Clinical Risk</p> <p>limitations of health informatics in maintaining patient safety and risk management</p> <p>Relationship between patient safety and informatics</p> <p>Function and application of the risk management process</p>	3	7
6	<p>Clinical Knowledge & Decision Making</p> <p>Role of knowledge management in improving decision-making in both the clinical and policy contexts</p> <p>Systematized Nomenclature of Medicine, Clinical Terms, SNOMED CT to ICD-10-CM Map, standardized nursing Terminologies (NANDA, NOC), Omaha system.</p>	3	7
7	<p>E-Health: Patients and the Internet</p> <p>Use of information and communication technology to improve or enable personal and public healthcare</p> <p>Introduction to public health informatics and role of nurses</p>	3	8
8	<p>Using Information in Healthcare Management</p> <p>Components of Nursing Information system(NIS)</p> <p>Evaluation, analysis and presentation of healthcare data to inform decisions in the management of healthcare organizations</p>	3	8

9	Information Law & Governance in Clinical Practice Explains the ethical and legal issues related to nursing informatics pertaining to healthcare information in contemporary clinical practice Ethical- legal issues related to digital health applied to nursing	4	10
10	Health care Quality & Evidence Based Practice Use of scientific evidence in improving the quality of healthcare and technical and professional informatics standards	3	8

Course Outcome:

Sr. No.	CO statement	Unit No
CO - 1	Apply knowledge of computer applications in patient care and nursing practice	1
CO - 2	Describe the principles of health informatics and the use of health information system in hospital	2,3
CO - 3	Explain the use of Electronic Health Records system in clinical practice	4
CO - 4	Utilize communication technology, (NIS), and data management skills to improve clinical practice and public health outcomes.	5-8
CO - 5	Apply principles of digital ethical and legal issues in clinical practice for quality patient care	9,10

Teaching & Learning Methodology: -

1. Lecture cum discussion
2. Power point presentation
3. Demonstration
4. Role play/Case study

Recommended Books

1. Priyanka Randhir; "Health/Nursing Informatics or technology"; CBS Publishers
2. Arashgeet Kaur, Taranpreet Kaur; "Textbook of Health/Nursing Informatics & Technology"; VHS Publication
3. Disha Gupta; "Textbook of Health/Nursing Informatics and Technology"; AITBS Publishers
4. Deepak Sethi; "Nursing Informatics & Technology"; Jaypee Publication
5. R Sreevani; "Health/Nursing Informatics and Technology"; Jaypee Publication

List of Open-Source Software/learning website

1. <https://ebooks.iospress.nl/volume/nursing-informatics>
2. https://www.dmiher.edu.in/frontEnd/pages/page/images/pdf/pocoSRMMCON/second_sem/New-CBNE-HNET.pdf

CO-PO-PSO Matrix

Co. No.	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO-1	2	2	3	1	3	3	2	3	3	3	2	2
CO-2	2	2	2	2	3	2	3	2	2	2	2	2
CO-3	2	3	2	2	3	2	3	2	2	2	3	2
CO-4	2	2	3	2	3	2	2	3	2	2	2	2
CO-5	1	2	1	3	3	2	2	2	3	2	3	3