

Bachelor of Vocation – Healthcare Management (Semester-5)

Undergraduate Curriculum Framework 2022(UGCF)

DISCIPLINE SPECIFIC CORE COURSE – DSC- 13: Bio Medical Waste Management & Radiation Safety

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/Practice		
DSC-13 Bio Medical Waste Management & Radiation Safety	4	3	1	0	NA	NA

Learning Objectives

To understand the significance of nosocomial infections, biomedical waste and its proper disposal

To understand the harmful effects of Radiation and measures taken to ensure radiation safety

Learning outcomes

1. Student will get the basic understanding and awareness about the different types of biomedical waste generated in the hospital
2. Students will also understand the importance of segregation of BMW and different methods to treat different wastes.
3. Awareness of Radiation Hazards in hospital will give students the methods of monitoring & reporting hazards.

Syllabus

Unit 1 (10 Hours)

Introduction to Biomedical Waste : Definition , Classification of Bio- Medical waste , Sources of Bio-Medical Waste , Effects- Air, Water & Land Pollution , Process of BMW Management – Segregation, collection, transportation, disposal .

Unit -2(13 Hours)

Types of BMW : Liquid BMW, Radioactive waste, Metals / Chemicals /Drug waste , Importance BMW Management & methods of disinfection, Regulations and Compliance.

Unit 3(10 Hours)

Modern technology for handling BMW , Monitoring & controlling of cross infection (Protective devices), Potential Health Risk -Needle Stick Injury, Exposure to Cytotoxic drugs, Chemical burns.

Unit-4 (12 Hours)

Radiation Hazards in a hospital, Safe use of Radioactive Drugs, Radioactive Waste Safe Disposal Guidelines , Monitoring & Reporting , Radiation safety –Training .

Practical component (if any) –

N/A

Essential/recommended readings-

1. Gupta, Suharshi (2021), Biomedical Waste Management, LAP Lambert Academic Publishing.
2. Gupta, S. (2015). Biomedical waste management in hospitals: Principles and practices. Jaypee Brothers Medical Publishers.
3. Chatterjee, C. (2012). Hospital hygiene and waste management in India. Avichal Publishing Company.
4. Bio-Medical Waste Act & Rules Govt. of India- <https://health.delhigovt.nic.in>

Suggestive Reading -

1. Guidelines for Management of Healthcare waste as per Biomedical Waste Management Rules, 2016- <https://cpcb.nic.in>
2. Challenges in Biomedical Waste Management in Cities-
3. <https://www.hilarispublisher.com/open-access>
4. Singh, R., & Sharma, P. (2018). Biomedical waste management: Indian healthcare perspective. Excel Books.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.

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DISCIPLINE SPECIFIC CORE COURSE – DSC-14: General Safety Codes, Fire Safety & Disaster Management in Hospitals

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/Practice		
DSC-14 General Safety Codes, Fire Safety & Disaster Management in Hospitals	4	3	1	0	NA	NA

Learning Objectives

On completion of this module the students should be familiar with the General Safety Codes, Fire Safety & Disaster Management in Hospitals

Learning outcomes

1. Students will get the basic understanding and awareness about the General Safety codes being followed in hospital for different kinds of emergencies.
2. Students will be able to identify different risks and hazards in the hospital
3. Students will be able to identify difference between emergency, accident and disasters and how to be prepared for different types of disasters.
4. As the hospital work and surge of admissions increase during disasters, students will be able to work on proper planning and implementation of successfully managing the situation in various disasters.

Syllabus

Unit 1(12 Hours)

General Safety Codes in a hospital – Bomb Threat, Violent Patient, Cardiac arrest, Child abduction, Fire, Disaster, Clinical Storage Guidelines, Compressed gas Safety Precautions, Hazardous Materials Spill, Handling of Cytotoxic Drugs, Laser maintenance.

Unit 2(12 Hours),

Assessment of Risks and Hazards in Hospital , Disruption of Services – Electric, Failure of Elevators, Failure of Operating Theatre Air Conditioning System, Disruption of Services-Water , Management – Accident Investigation and Analysis , Safety Orientation Training , Annual Evaluation of The Effectiveness of Safety Management Program.

Unit 3(9 Hours)

Fire Safety : Minor Fire , Major Fire (without Evacuation) , Major fire (With Partial/full evacuation) , Composition of firefighting team , Duties of staff involved in fire , Mock Drill , Emergency Exit Plan.

Unit 4(12 Hours)

Hospital Disaster Management : Basics of disaster management and Mass casualties , Components of disaster plan : pre-hospital and hospital , Disaster alertness in Hospital , Disaster management planning and implementation , Severity of illness amongst disaster victims and risk assessment , Mock exercise on disaster management in Hospital.

Practical component (if any) – N/A

Essential/recommended readings

1. Singh, R., & Sharma, P. (2018). Healthcare safety and risk management in hospitals. Excel Books.
2. Gupta, S. (2014). Hospital administration and management. Jaypee Brothers Medical Publishers.
3. National Disaster Management Guidelines- <https://ndma.gov.in>
4. Hospital Disaster Management Guidelines- <https://nidm.gov.in>

Suggestive Reading -

1. Muller, Robert J., (2017), Hospital Emergency Management: A Bible for Hospital Emergency Managers, Create Space Independent Publishing Platform.
2. Goel, S. L., & Kumar, R. (2004). Management of hospital (Vols. 1–4). Deep & Deep Publications.

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DISCIPLINE SPECIFIC CORE COURSE – DSC-15: Hospital Infection Control

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/Practice		
DSC-15 Hospital Infection Control	4	3	1	0	NA	NA

Learning Objectives

On completion of this module the students should be familiar with the hazards of Infections and Infection control practices in Hospitals

Learning outcomes

1. Students will understand different types of hospital acquired infections and the ways infections are transmitted
2. Students will understand the infection control and prevention measures to be implemented in the hospital to make it a safe place.
3. Knowledge of Disinfection & Sterilization policies to be followed in the hospital will make students equipped about the practices to be followed in patient care areas.

Syllabus

Unit 1(12 Hours)

Epidemiology of communicable diseases, disease transmission, Host defence immunizing agents, cold chain, immunization, disease monitoring and surveillance, Screening and surveys , Notifiable diseases .

Unit 2(12 Hours)

Infection Control & Prevention- Hazards of infection , Hospital Acquired Infection (HAI) , Types of HAI, Surveillance of HAI , Risk Factors, Hospital Infection Control Measures-

Universal Precautions, Hand Hygiene Protocols , Investigation of an epidemic and role of hospital in its control. , Hospital Infection Control committee.

Unit 3(12 Hours)

General Cleaning Disinfection and Sterilization- Cleaning and Disinfecting of Environmental Surfaces in Patient-Care Areas , Antiseptics and disinfectants , Methods of sterilization and disinfection .

Unit 4(9 Hours)

Spill Management-Types of Spillages, Policy on Spill Management, General Precautions.

Practical component (if any) –

N/A

Essential/recommended readings

1. S. Sastry, Apurba; R., Deepashree (2019), Essentials of Hospital Infection Control, Jaypee Brothers Medical Publishers.
2. Gupta, S., Singh, S., & Kant, S. (2012). Hospital infection control guidelines: Principles and practice. Jaypee Brothers Medical Publishers.

Suggestive Reading -

1. Singh, Sanjeev; Gupta, Shakti Kumar; Kant, Sunil (2012), Hospital Infection Control Guidelines, Jaypee Brothers Medical Publishers.
2. Muralidhar, V., & Muralidhar, S. (2006). Hospital acquired infections: Power strategies for clinical practice. Viva Books

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