

Course Title: **Safety, Health & Waste Management**

Course Code: **CeNS-SW**

Total Duration: **12 hours**

(Certificate based course)

Course Nature: **Mandatory**

Course Coordinator: **Dr. C. V. Yelamaggad**

Section	Contents/Syllabus	Duration	Date & Time	Instructor
I	Safety aspects - General & fire: Basic principles of safety management. Fire safety and engineering. Fire prevention and protection Chemistry of fire, types of fire, fire suppression. Mock drills / Types of active & passive fire safety systems, demonstration of fire safety appliances. Electrical hazards & safety, chemical hazards, (spillage, storage). Handling of hazardous gases, storage, Transportation. Selection, Installation, operation and maintenance of fire safety systems, building fire safety and fire protection systems. Risk analysis. Personal Protection (PPE) , Concepts of personal protective equipment –types – selection of PPE – Evacuation and rescue operation	Teaching: 2 hr Demo: 1 hr (3 hrs)	09 Nov 2020 Monday 2:00 PM – 3:30 PM	Mr. M. Chandrasekhar IISc, Bangalore
			10 Nov 2020 Tuesday 2:30 PM – 3:00 PM 3:00 PM – 4:00 PM (Online demo video)	
II	Combating pathogenic microorganisms – Inevitable change in daily life style: Wearing mask (significance, the ways of wearing and maintenance); cleaning hands; the methods of washing hands using soap / sanitization of hands using hand sanitizer; way of coughing or sneezing; avoiding touching your eyes, nose and mouth; limiting/avoiding social gatherings and limiting time spending in crowded places; avoiding close contact with sick; cleaning and disinfecting frequently touched objects and surfaces; general precautions to be observed	Teaching: 1 hr Discussion: 0.5 hr (1.5 hrs)	17 Nov 2020 Tuesday 10:30 AM – 12:00 noon	Dr. C .V. Yelamaggad CeNS
III	Chemical / Electrical Safety Chemical: Hazard vs risk (exposure); personal protective equipment – what to wear in labs hazard communication – labels, containers & msds disposal of lab hazardous waste. Electrical Safety: 3 Key Parameters; Hazard and Effects Controls and PPE	Teaching: 1 hr Discussion: 0.5 hr (1.5 hrs)	21 Nov 2020 Saturday 10:30 AM – 12:00 noon	Ms. Lavanya, B. CeNS
IV	Health aspects (Life style choices for health, happiness and harmony):1.Physiological Self a. Eat Right -Well-balanced diet and nutrition, Maintaining good nutritional status during COVID 19, Immunity Boosting Foods – Ayurvedic Perspective b. Physical Fitness and Exercise -Activity day plan, Ergonomics and On-line/Screen time, Lung Power – Breathing and Exercise c. Social and Emotional Self -Understanding Self and Boundary Management, Mind, Body and Hormonal Balance, Boundary Management, Smiling and Laughter – Beating your blues! d. Managing Professional Stress - Eustress and Distress – Balancing act, Risk behaviors, Psychosomatic disorders and Burn out, Coping strategies e. Emotional and Social Quotient -Emotional Intelligence, Assertiveness and Positive Attitude, Relationships and Johari Window Pedagogy – Interactive sessions, Self-assessment inventories, hands on activity and brief exercise breaks.	Teaching: 3 hr (Including discussion)	01 Dec 2020 Tuesday 10:00 AM – 11:30 AM	Prof. Usha Manjunath Director, Institute of Health Management Research, Bangalore
			02 Dec 2020 Wednesday 10:00 AM – 11:30 AM	
V	Waste management (including presentation of documentary through video): Types of solid wastes (municipal waste, industrial waste, hazardous waste, biomedical/COVID-19 waste). Waste characteristics (sources and generation rates). Waste management strategies (collection, disposal, transportation).Waste Processing Techniques. Waste minimization, waste hierarchy and waste audit. Waste management rules, 2016. Plastic Waste Management Practices (Use of Plastic waste in roads, issues and challenges). Swachh Bharat Abhiyan. Recent advances in waste management	Teaching: 3 hr (Including discussion)	05 Dec 2020 Saturday 10:00 AM –11:30 AM	Prof. Naveen BP Amity University, Haryana, Gurgaon
			07 Dec 2020 Monday 10:00 AM –11:30 AM	