



Government of India
Ministry of Human Resource Development
Sponsored



Global Initiative for Academic Network (GIAN) Course on
“Study of various effects of heavy metals present in bore well water on human system”

organized by

Department of Chemical Engineering,
BMS College of Engineering, Bangalore, INDIA
14th November 2016 to 22nd November 2016

Program Schedule

Date	Time	Program	Title
14 th November 2016 (Monday)	9:00 to 9:30	Registration	Library Auditorium
	9:30 to 10:45	Inaugural function	Library Auditorium
	10:45 to 11:15	High Tea and Discussions	
	11:15 to 12:45	Lecture 1	Introduction to the Course, Overview, significance of the course, Safe drinking water –Global Issues
	12:45 to 14:00	Lunch Break	
	14:00 to 15:00	Lecture 2	Heavy Metal Toxicity: Environmental and Health
	15:00 to 15:15	Tea Break	
15 th November 2016 (Tuesday)	15:15 to 16:30	Lecture 3	Assessment Pattern & Discussion
	10:00 to 11:30	Lecture 4	Specific example 1: Lead Toxicity profiles, exposure- occupational and non-occupational, local and worldwide, Routes of exposure, Pathophysiology- effects on various human systems, Symptoms and treatment of lead poisoning
	11:30 to 11:45	Tea Break	
	11:45 to 13:15	Lecture 5	A Historical Perspective of Lead Poisoning, A Case of Lead Poisoning – Flint, Michigan, US.
	13.15 to 14:30	Lunch Break	
16 th November 2016 (Wednesday)	14.30 to 16.00	Lecture 6	Identification of Heavy Metals
	10.00 to 11.30	Lecture 7	Heavy Metals: Historical perspective and its Source
	11.30 to 11.45	Tea Break	
	11.45 to 13.15	Lecture 8	Specific example 2- Mercury Toxicity profiles, exposure- occupational and non-occupational, local and worldwide, Routes of exposure, Pathophysiology- effects on various human systems, Symptoms and treatment of Mercury poisoning
	13.15 to 14.30	Lunch Break	
17 th November 2016 (Thursday)	14.30 to 16.00	Lecture 9	Specific Case Studies: Minamata Disease
	10:00 to 11:30 am	Lecture 10	Specific example 3- Cadmium Poisoning, toxicity profiles, exposure and remediation
	11:30 to 11.45	Tea Break	

	11:45 to 13:15	Lecture 11	Specific example 4- Arsenic Toxicity profiles, exposure- occupational and non-occupational, local and worldwide, Routes of exposure, Pathophysiology- effects on various human systems, Symptoms and treatment of Arsenic poisoning, Identification of Arsenic in water.
	13:15 to 14:30	Lunch Break	
	14:30 to 16:00	Lecture 12	Specific Case Studies for Arsenic Poisoning. Assessment and Open book/work on presentation
18 th November 2016 (Friday)	10:00 to 11.30	Lecture 13	Specific example 5- Chromium Poisoning, toxicity profiles, exposure and remediation
	11.30 to 11.45	Tea Break	
	11.45 to 13:15	Lecture 14	Specific example 6- Zinc & Cobalt Toxicity profiles, exposure- occupational and non-occupational, local and worldwide, Routes of exposure
	13.15 to 14:30	Lunch Break	
	14.30 to 16.00	Lecture 15	Specific example 7- Fluoride Toxicity profiles, exposure- occupational and non-occupational, local and worldwide, Routes of exposure Panel Discussion with the participants
21 st November 2016 (Monday)	8.00	Reporting	Library Auditorium
	8:30 to 17:00	Lecture 16, 17 &18	Lecture & Demonstration of potable water purification techniques used in large scale water purification plant
22 nd November 2016 (Tuesday)	10.00 to 11.30	Lecture 19	Discussion of the various protocol needed for water quality monitoring
	11.30 to 11.45	Tea Break	
	11.45 to 13.15	Lecture 20	Demonstration of water testing by Total organic Carbon (TOC) analyser, UV-Spectrophotometer, Flame photometer, Turbidity meter, High quality Water purification unit
	13.15 to 14.30	Lunch Break	
	14.30 to 16:00	Lecture 21	Presentation by participant in groups on assigned topic Discussion on the overall program to summarize the learning outcome by focus group survey
	16:00 to 16:30	Feedback Session and Certificate Distribution	