

CONTINUING EDUCATION CELL

NATIONAL INSTITUTE OF TECHNOLOGY RAIPUR

G.E. Road, Raipur – 492010 (C.G.)

Ph- (0771)2253934

No./NITRR/CEC/2021/163

Date:27/10/2021

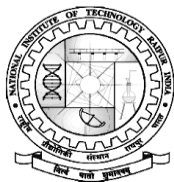
NOTICE

Continuing Education Cell, NIT Raipur is going to offer a certificate course on “Occupational Safety and Health Management at Workplace”.

Course Name	Tentative schedule	Note
Occupational Safety and Health Management at Workplace (online mode)	First Week of December -2021	1. The course fees for the training program will be Rs. 10,000 + GST (18 %) per participant. 2. If an organization wishes to pursue the course for it's employees, then the course fees will be Rs. 2.00 Lakhs + GST (18%) for 20 participants. The course fees will remain same even if the number of participants are less than 20. If the number of participants are more than 20, the course fees will be Rs. 10,000 + GST (18%) for each additional participant

Interested candidates/organizations can apply in the prescribed application form along with the course fee to the office of the undersigned. For any clarification the course coordinator (Dr. A. K. Dash, Assistant Professor, Department of Mining Engineering, Email: akdash.min@nitrr.ac.in Mobile: 9406148487). For course details kindly refer to **Annexure- A**

Dr. Subhojit Ghosh
Chairman,
CEC NIT, Raipur



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ANNEXURE-A

Occupational Safety and Health Management at Workplace

Objectives of Training Programme: The objectives of the course is to help the participant in developing a solid understanding of the Occupational Safety and Health (OS&H) legislation, processes, procedures, and techniques involved in workplace safety hazard recognition, assessment and its control, Impact of Ergonomics on Occupational Health & Safety, various Occupational Hazards and its prevention, importance of and process of Accident / Incident Investigation system and Safety Audits.

Learning Outcomes (LO): Upon successful completion of this Training Programme, the participant will be able to:

- Gain knowledge in both the theoretical and applied aspects of the occupation health and safety function in Workplaces.
- Understand the economic, social and moral considerations of OS&H in an organization.
- Understand the concept of risk and risk based safety management system.
- Identify the risk and hazards in industrial operation and propose prevention measures.
- Carry out risk assessment by using different methods / tools / models / methodologies of risk assessment.
- Understand the Impact of Ergonomics on Occupational Health and Safety
- Identify the different Occupational Health Hazards
- Carry out Accident / Incident Investigation and Safety Audits
- Manage safety in industries by suggesting safety measures and PPE.

Course Content

Module I

Occupational Health and Hazards:

Introduction to workplace hazards, types of workplace hazards, health risks associated with workplace hazards, Managing occupational health, assessment and evaluation of hazardous substances at work, Control of hazardous substances, Biological agents, Noise, Vibration, Radiation, Thermal stress index, Musculoskeletal disorders and controls, Work environment risks and controls, Relevant statutes.

Module II

Impact of Ergonomics on Occupational Health and Safety:

Introduction and Overview of Ergonomics, Ergonomics and human factors at work, Definition, Aim and focus of Ergonomics, Physiological work load classification, Total Calories and concept on Energy expenditure, Application of ergonomics for safety & health,



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Ergonomic Improvements and Controls, Overview of Ergonomic guidelines for work station design, Case study.

Module III

Risk Assessment and Safety Management System:

Introduction to Occupational and Non-occupational Risks & it's detection techniques / models / methodologies / tools like Preliminary hazard analysis (PHA) & hazard analysis (HAZAN), failure mode effect analysis (FMEA), Hazard and operability (HAZOP) study, Hazard ranking, Fault tree analysis, Event tree analysis, Job Safety Analysis (JSA), etc. Assessment and evaluation of risk, Short and Long term Risk control measures, Salient features of Principal Hazard Management Plan (PHMP), Safety Management Plan (SMP) and Emergency Response and Evacuation Plan (EREP), Case study.

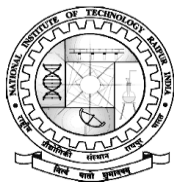
Module IV

Workplace Accident Investigation and Safety Audits:

Accidents and their classification; Basic causes of accident occurrence at workplace, Potential factors for accident, Cost of accidents, Objective of Accident Investigation, Process of Accident Investigation, Accident reporting, Preparation of Accident investigation report, Calculation on accident statistics (IFR) and finding confidence interval, Case study.

Overview and objective of Safety Audit, Types of Safety Audit, Benefits of Safety Audit, Procedures of Safety Audit, and Safety profile rating system (SPRS), Case study.

Personal Protective Equipment: Introduction to PPE, Need of PPE, Indian standards, factors of selection of PPE, non-respiratory equipment, respiratory equipment's etc.



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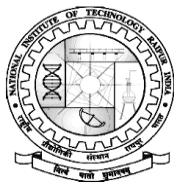
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Tentative Time Table of Certificate Course on “Occupational Safety and Health Management at Workplace”

*[*NOTE: Time of online classes will be finalised after consulting the participants/sponsoring organization.]*

Day	Content
Day 1	Module I: Occupational Health and Hazards: Introduction to workplace hazards, types of workplace hazards, health risks associated with workplace hazards
Day 2	Managing occupational health, assessment and evaluation of hazardous substances at work, Control of hazardous substances, Biological agents, Noise, Vibration, Radiation, Thermal stress index
Day 3	Musculoskeletal disorders and controls, Work environment risks and controls, Relevant statutes
Day 4	Module II: Impact of Ergonomics on Occupational Health and Safety: Introduction and Overview of Ergonomics, Ergonomics and human factors at work
Day 5	Definition, Aim and focus of Ergonomics, Physiological work load classification, Total Calories and concept on Energy expenditure
Day 6	Application of ergonomics for safety & health, Ergonomic Improvements and Controls
Day 7	Overview of Ergonomic guidelines for work station design Case study.
Day 8	Open discussion and Case studies
Day 9	Module III: Risk Assessment and Safety Management System: Introduction to Occupational and Non-occupational Risks.
Day 10	Occupational and Non-occupational Risks detection techniques / models / methodologies / tools like Preliminary hazard analysis (PHA) & hazard analysis (HAZAN), failure mode effect analysis (FMEA)
Day 11	Hazard and operability (HAZOP) study, Hazard ranking, Fault tree analysis, Event tree analysis, Job Safety Analysis (JSA), etc.
Day 12	Assessment and evaluation of risk, Short and Long term Risk control measures
Day 13	Salient features of Principal Hazard Management Plan (PHMP)
Day 14	Principal Hazard Management Plan (PHMP) and Case study



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Day 15	Safety Management Plan (SMP)
Day 16	Preparation of Safety Management Plan (SMP)
Day 17	Safety Management Plan (SMP) and Case study
Day 18	Emergency Response and Evacuation Plan (EREP)
Day 19	Preparation of Emergency Response and Evacuation Plan (EREP)
Day 20	Emergency Response and Evacuation Plan (EREP) and Case study
Day 21	Module IV: Workplace Accident Investigation and Safety Audits: Accidents and their classification; Basic causes of accident occurrence at workplace
Day 22	Potential factors for accident, Cost of accidents, Objective of Accident Investigation, Process of Accident Investigation
Day 23	Case Study on Accident Investigation
Day 24	Accident reporting, Preparation of Accident investigation report
Day 25	Calculation on accident statistics (IFR) and finding confidence interval, Case study
Day 26	Overview and objective of Safety Audit, Types of Safety Audit, Benefits of Safety Audit, Procedures of Safety Audit, and Safety profile rating system (SPRS)
Day 27	Safety Audit and its Case Study
Day 28	Personal Protective Equipment: Introduction to PPE, Need of PPE, Indian standards
Day 29	Factors of selection of PPE, non-respiratory equipment, respiratory equipment's etc.
Day 30	Overall Safety and Health Management at Workplace



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APPLICATION FORM

Name of the Course Applied:

Name:

Father's/Husband's Name:

Date of Birth: Sex: Male ☐ Female ☐

Occupation:

Paste a

Passport Size Color
Photograph Here

Qualification:

Address:

*E-mail ID:

Phone (with STD code): Residence: Mobile:

Aadhar Number :

Time: Tick whichever is applicable,

(A) Batch-I (Morning - 07:15 AM to 09:15 AM)

(B) Batch-II (Evening - 05:30 PM to 07:30 PM)

Fee Details:

Amount: DD No.: Date:

Name of Bank:

(Please write your name and course applied for in the back of the Demand Draft also.)

Date:

Signature of the Applicant

Note:

1. Time/Batch will be allotted as per the convenience of the applicant in general, however candidate may be asked to change the batch as per the requirement of the course.
2. The Fee Deposited for any course is non-refundable & non-transferable.
3. Information regarding the classes will be sent to through mail after registration.
4. If applicant is in Government service, they need to apply through proper channel.

For Office Use Only

Course and Time allotted:

Fee Details:

Place & Date:

Signature of CEC-Chairman