

CERTIFICATE COURSE ON ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

(Level 7-NSQF)

Duration: 3 months (300 hours)

The purpose of Environmental Impact Assessment (EIA) is to provide decision makers, and the public, with a systematic, comprehensive and objective assessment of the environmental consequences of an action. EIA provides a procedure for the full consideration of the possible adverse environmental impacts of policies, programs, activities and projects before any decision to proceed: it precludes behind-closed doors decision making in the public and private sectors. There are no. of developmental projects such as mining, industries, power plants etc. in which EIA plays an important role in managing the environmental issues related to the projects. EIA along with knowledge of Environmental Audit will be useful in taking care of environment. This course is a foundation course of 3 months duration. A candidate having B.Sc or above qualification will be eligible for this course to obtain skill in conducting Environment Impact Assessment / Environment Management Plan and Environmental Audit of different developmental projects. The course is designed to help youth in building employment career in industries, mining sector, other developmental projects, environmental consultancy and also promote them in building their career in research activities. They will be able to pursue their employment career as Environment Officer, Environment Auditor, Project Officer, Project Officer, Research Officer or Environmental Consultant. After completion of this basic course the trainees may be encouraged for advance course if needed.

Course Objectives:

- ↳ To provide basic understanding of the EIA process as it is used for research, planning, project or program evaluation, monitoring, and regulatory enforcement.
- ↳ To introduce students to the legal, economic, social, administrative and technical process of preparing and/or evaluating environmental impact documents.
- ↳ To relate the uses of scientific research to practical situations in project planning and decision making.
- ↳ To provide experience and training in environmental planning and related professions.

Anticipated Outcomes:

Upon completion of this course students will be able to

- ↳ Prepare environmental documents through administrative and legal requirements and standards of professional practice.
- ↳ Analyze proposed development projects for possible environmental effects and prepare appropriate initial studies.

- ↪ Utilize EIA documents for policy development, project planning or for legal or political action planning.
- ↪ Acquiring a better understanding of theoretical ideas in a broad and general way the ecology of human societies and the social impact of development on communities and regions.

Syllabus Structure

1. Introduction to various Environmental Acts & Rules (Theory) (10 hours)
 - ↪ Environment Protection Act
 - ↪ Biodiversity Act
 - ↪ Forest Act
 - ↪ EIA Notification
2. Concept of Environment Impact Assessment, Environmental Audit, Environmental Impacts, Environmental Impact Statement and role of EIA in society (Theory)- (20 hours)
3. Concept of Screening, Scoping, Public consultation, categorization of projects & procedure for environmental clearance (Theory) (10 hours)
4. Basic parts of EIA for different projects (Theory) (30 hours)
 - ↪ Categorization of projects
 - ↪ Project description
 - ↪ Environment
 - ↪ Anticipated environmental impacts
 - ↪ Mitigation measures
 - ↪ Analysis of alternatives
 - ↪ Environmental monitoring program
 - ↪ Additional studies
 - ↪ Project benefits
 - ↪ Environmental cost benefit analysis
 - ↪ Environment Management Plan
 - ↪ Survey
5. Environmental Attributes (Theory) (10 hours)

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|------------|-----------------|
| ↪ Air | ↪ Water |
| ↪ Noise | ↪ Land |
| ↪ Soil | ↪ Socioeconomic |
| ↪ Cultural | ↪ Biological |

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| 6. | Baseline environment (Theory) | (8 hours) |
| ↳ | Purpose of setting parameters | |
| ↳ | Selection of parameters | |
| ↳ | Monitoring parameters | |
| ↳ | Collection & interpretation of baseline environmental attributes | |
| 7. | Monitoring & sampling methods (Theory & Practical) | (8 hours) |
| 8. | Laboratory training for sample (Practical) | (30 hours) |
| 9. | GIS mapping (Practical) | (20 hours) |
| 10. | Field visit to different project sites and survey (Practical) | (50 hours) |
| 11. | Prediction Methods (Theory & Practical) | (10 hours) |
| 12. | Aspects of environment & application of various models for impact prediction (Theory) | (10 hours) |
| 13. | Public participation (Theory) | (4 hours) |
| 14. | Case studies of different projects (Theory) | (10 hours) |
| 15. | Environmental Management Plan (Theory) | (10 hours) |
| 16. | Environmental Audit (Theory) | (60 hours) |
| ↳ | Concept | |
| ↳ | Compliance with environmental regulations | |
| ↳ | Good environmental management practices | |
| ↳ | Eco-Management and Audit Regulation | |
| ↳ | Post-audit activities | |
| ↳ | Benefits of Environmental Audit | |
| ↳ | Environmental Audit Programme in India | |
| ↳ | Environmental Risk Assessment | |
| ↳ | Environmental Quality and Environmental Standards for Environmental Quality Assessment and Monitoring | |
| ↳ | Environment Management Cycle | |
| ↳ | Self Assessment | |