

ENVIRONMENTAL AUDITING

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
		Lecture	Tutorial	Practical/ Practice		
ENVIRONMENTAL AUDITING	02	0	0	02	12 th Pass	None

Learning Objectives

- Gain an understanding of the fundamental principles and components of environmental auditing
- Train in conducting an environmental audit in any organization/ institution
- Implement critical thinking toward environmental problems and formulate local solutions for their mitigation

Learning outcomes

The Learning Outcomes of this course are as follows.

After the course, the students will be able to

- Conduct an environmental audit in a scientific manner
- Recommend organizations to adopt specific sustainable strategies
- Serve as catalyst to evolve sense of ownership and responsibility among organizations/industries towards solving local environmental problems.
- Pursue environmental auditing for higher studies and a future career.

SYLLABUS: ENVIRONMENTAL AUDITING

Practicals/Hands-on Exercises (02 Credits: 60 hours)

1. Prepare a working plan (in the form of a flowchart/ graphical abstract) for the environmental audit of any organization/ institution focusing on pre-audit, on-site and post-audit objectives and activities
2. Prepare a brief profile of any selected organization/ institution (Area, land use, green cover, organizational setup, demography etc.) and discuss its environmental policy and the environmental management systems
3. Prepare an interpretive electricity consumption report of the organization/ institution over a five-year period (both actual or arbitrary data can be used).
4. Prepare an interpretive water consumption report of the organization/ institution over a five-year period (both actual or arbitrary data can be used). Also, identify the sources of wastewater discharge and its management, if any.
5. Survey the campus and prepare a list of the plant/ animal (or both) diversity, highlighting its importance and threats faced.
6. Prepare a monthly air quality level dataset nearest to the institution's location, extracting data from the National Air Quality Index (CPCB) website. Prepare a report on causes of variation and measures taken by an organization to improve air quality levels
7. Prepare a comprehensive assessment report of Solid Waste Management at the organization/ institution highlighting compliance to Solid Waste Management Rules, 2016.
8. Formulate a scientifically sound protocol for identifying and disposing of e-waste and hazardous waste at any organization based on E-waste (management) rules, 2016 and Hazardous waste (management) rules, 2016.
9. Examine various environment-related practices and activities of the organization/ institution that have impacted the neighbouring communities and prepare a social audit questionnaire for studying the impact.
10. Compile the data, results, and analysis of all previous practicals and prepare a detailed environmental audit report of your selected organization/ institution.

Teaching learning interface for practical skills

To impart training on technical and analytical skills related to the course objectives, a wide range of learning methods will be used, including (a) laboratory practicals; (b) field-work exercises; (c) customized exercises based on available data; (d) survey analyses; and (e) developing case studies; (f) demonstration and critical analyses; and (h) experiential learning individually and collectively.

Prospective Sectors:

- (a) Universities/Colleges, (b) Environmental Consultancies, (c) Environmental NGOs, and (d) Indian Audit & Revenue Departments

Essential/recommended readings

- Cahill, L.B (2017). Environmental Health and Safety Audits: A Compendium of Thoughts and Trends, 2nd Edition, Bernan Press.
- Council, N.C., Britain, G. and Unit, E.F., 2011. Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit. Nature Conservancy Council.
- Ho G, Anda, M., Brennan, J., 2015. Water Auditing and Water Conservation. IWA Publishing
- Pain, S.W., 2010. Safety, Health, and Environmental Auditing: A Practical Guide. CRC Press.
- Thuman, A., Niehus, T., Younger, W.J., 2012. Handbook of Energy Audits, 9th ed. Routledge, Taylor and Francis
- Van Guilder, C.V., 2014. Environmental Audits. Mercury Learning & Information.

Suggested readings

- Barton, H., and Bruder N., 1993. A Guide to Local Environmental Auditing. Routledge, Taylor and Francis