

Faculty of Engineering & Technology

Environmental Impact of Projects

Information :

Course Code : GEN 541

Level : Undergraduate

Course Hours : 2.00- Hours

Department : Specialization of Electrical Power Engineering

Instructor Information :

Title	Name	Office hours
Lecturer	MARIAM AHMED SAMEH MOHAMAD AHMED ABBADI	4
Lecturer	MARIAM AHMED SAMEH MOHAMAD AHMED ABBADI	4
Assistant Lecturer	Ahmed Moreab Hussien Mohamed	1
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Area Of Study :

This course aims to:

Define the environment and the different influencing factors. Human Influences of projects: Upgrading, development, economic factors, social factors, cultural factors, aesthetic factors, hygienic and psychological factors, Types of projects: Urban planning projects (residential projects, tourism projects, commercial projects, public buildings etc.), Infrastructure projects (electricity plants, water supply and sewage networks, road networks, railroad networks, reservoirs, dams etc.). different Industrial projects (textile factories, steel Industries, cement factories, carpet factories, ceramic factories, food factories, electrical appliances, car industries etc.). Environmental impact of projects: Negative and positive impacts (direct and indirect). The assessment of projects both nationally and internationally in order to avoid the negative consequences of projects on the environment. The approved rates and criteria for the compatibility of projects with environmental topics.

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Course outcomes :

a. Knowledge and Understanding :

1 -	Define national environmental policy, its quality regulations and laws.
2 -	Describe the planning of impact studies.
3 -	Identify impacts & its assessment methodology.
4 -	Outline decision methods for the evaluation of alternatives.

b. Intellectual Skills :

1 -	Evaluate all studies needed for impact prediction.
2 -	Calculate, with necessary estimation, the quantity of gases and pollutants emitted from chemical reactions of specific projects.
3 -	Identify alternative solutions for environment protection.

c. Professional and Practical Skills: :

1 -	Plan a criterion enabling to identify data, include it in technical reports, and implementing of EIA methods.
2 -	Prepare technical reports including describe of engineering projects and evaluation of their gas's emission and other pollutant environmental outputs

d. General and Transferable Skills: :

1 -	Work effectively in a team.
2 -	Search for information and engage in life-long self-learning discipline.

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Types of projects studies	7	6	1
Environmental impact of projects	10	6	4
Nationally and internationally assessment of projects	9	6	3
Criteria for the compatibility of projects with environmental topics	6	4	2
Case studies of existing projects in Egypt and related problems	9	6	3
Definition of the Environment , the different influencing factors, and Human Influences of projects	4	2	2

Teaching And Learning Methodologies :

Interactive Lecture
Small Groups Discussion
Public Group Discussion
Search for Data (Self-study)
Research Presentation

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Assignment& Report	5.00		
Final Exam	40.00		
Mid- Exam 1I	15.00		
Mid- Exam I	15.00		
Presentation	20.00		
Quizzes	5.00		

Recommended books :

1. Angus Morrison-Saunders, " Advanced Introduction to Environmental Impact Assessment", Elgar Advanced Introductions series, 2018.
2. Dr. Suresh K. Dhameja, " Environmental Engineering and Management", S. K. Kataria & Sons Publishers, 5th edition, 2014.
3. Larry W. Canter, "Environmental Impact Assessment", McGraw Hill , 1996.

Periodicals :

- Principle of Environmental Impact Best Practice (pdf) www.iaia.org/modx/files/principle%20IA_web.pdf
- Strategic Environmental Assessment: A rapidly evolving approach www.nssd/pdf/IIED02.pdf

Web Sites :