

Course Number

ENS-247-01

Course Description

Infrastructure is the backbone of nations. It is a society's inventory of systems and facilities that allow it to function properly and smoothly. This includes, but is not limited to, roads, bridges, tunnels, dams, transit, waterways, ports, aviation, pipelines, transmission lines, rail, parks, and public buildings such as schools, courts, hospitals, and recreational and sport facilities. Infrastructure involves also services such as energy, water supply, wastewater treatment, power and gas distribution grids, waste collection, and sewer disposal. Major advances in technology resulted in digital infrastructure that includes communication networks, signal transmission towers, data centers, information repositories, servers/computers, and the Internet. This course explores the progress humanity achieved in developing infrastructure facilities and the present move towards sustainability. Methods, materials, processes, technologies, practices, and operations required to maintain a healthy environment and efficient infrastructure will be examined. The intersection between policies necessary for sustainable infrastructure and political, economic, social, societal, and cultural factors will be emphasized.

Academic Term

22/FA

Instructor

Ghaly, Ashraf

Location & Meeting Time

Olin Building-306+ T/TH 09:00AM-10:45AM LEC

Credits

1.00

Capacity

24

Total Students

21

Common Curriculum

SET

GETS

Interdisciplinary Programs

Science, Medicine & Tech in Cu

Environmental Science & Policy

Academic Department

Environmental Science & Policy

Field Of Study

Env Science, Policy & Engrng (ENS)