

Energy Fundamentals – ENE101

Lectures: 3 sessions / week, 1.0 hour / session
8 weeks

Prerequisites

N/A

Course Description

This course provides an introductory understanding of conventional, unconventional, and renewable energy sources. A knowledge of education and career opportunities from energy generation to distribution will also be provided.

Course Overview

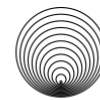
Session #	Topics	Key Dates
1-3	Self-Analysis: Career Development	Individual Paper Due
4-6	US Electric Grids	
7-9	Transmission and Distribution	Team Paper Due
10-12	Power Plant Economics	Individual Project Paper Due
13-14	Renewable Energy	
15-17	Nuclear Power Plants	Team Paper 2 Due
18-20	Thermal Power Plants	
21-22	Energy Fundamentals	Final Individual Paper Due

Course Requirements

Students will be graded on class participation; team papers and teaching exercises, and on two individual papers, 2 - 3 pages in length.

Activities	Percentages
Class Participation	40%
Team Response papers (2) and Team Building Exercises	25%
Individual Project Paper	15%
Individual Final Paper	20%

In all cases, the students' contributions will be evaluated from the standpoint of their growth throughout the course. Visual, audio, reading, and kinetic elements are included in the learning



environment to assist in each student's processing of information. All assignments are designed to encourage the student to own the information, develop practical applications, and demonstrate employability skills.

Recommended Resources and Materials

Thompson, William L. (2016) *Living on the Grid*. iUniverse. Bloomington, IN.

Gupta, Manoj Kumar. (2012). *Power Plant Engineering*. PHI Learning Private Limited, Delhi.

National Energy Education Development Project. (2019). *Intermediate Energy Infobook*.