

Certificate Courses

Certificate Course 1. The Certificate in Management of Petroleum Industry and Economics Course Objectives The Certificate program in the Management of Petroleum Industry and Economics is designed for students or professionals with degrees in science, engineering or social science, and A Level leavers with science combinations seeking in depth training to develop managerial skills needed in the field of petroleum techniques, petroleum economics and management. The courses in this program include technical studies in parallel with training in the understanding of corporate economics, the mastering of the main management tools and the characteristics specific to energy industries. Duration The Certificate in the Management of petroleum industry and economics program is a 1 year program with two semesters of six months each. Learning objectives/out comes of the program On completion of the Certificate of Management of Petroleum Industry and Economics, students will be:

- Be equipped with multi disciplinary skills in the energy sector, be internationally minded and capable of teamwork in an international context,
- Have gained an understanding of the energy sector in its economic, commercial, financial, environmental and technical dimensions,
- Be capable of using the main decision making tools for making and justifying operational decisions. The academic content shall be organized into two levels of training. Level one is for mainly introductory courses while level two caters for more advanced courses. Course Units Semester I

- Energy Scenario and Bridge Course
- Petroleum Exploration and Production Management
- Crude Oil and Product Trading
- Petroleum Refining
- Lubrication and Lubricants
- Petroleum Products Measurement and Distribution Terminals
- Petroleum Economics and Marketing
- Energy and Engine Technology

Semester II

2. The Certificate in Energy Management Introduction The Certificate in Energy Management is a programme aimed at equipping candidates with skills to conduct energy audit and promote energy management, plan, design, commission, diagnose and rectify faults in all sectors of the economy, including industry, commercial buildings, institutions, households, transport and agriculture. Course Objectives The primary objectives of the training programme:

- To train students, through multi-disciplinary approach in the field of energy audit, management and conservation as well as the Non-conventional energy sources and environmental engineering.
- Provide participants with an understanding on the importance of energy audit and energy conservation
- Develop an understanding on carrying out energy audit of electrical and thermal systems in industries
- Facilitate participants in conducting energy audit in real life situation
- Familiarize with recent developments in the field of energy efficiency Learning Objective/Out Comes of the Certificate in Energy Management Programme field of energy audit, management and conservation as well as the non-conventional energy sources and environmental engineering. Such trained manpower will be useful to optimize & conserve the energy resources, utilize waste energy, reduce environmental pollution produced due to inefficient energy usage and introduce new renewable energy sources in the society.

At the end of the course the student should be able to.

- Critically appraise the existing procedures for energy management and energy source selection and suggest improvements:
- By the use of engineering and scientific principles, develop and undertake the critical evaluation of alternative proposals and designs for energy provision and management in a business environment.
- Confidently liaise with other professionals on matters associated with energy source selection and energy management
- Conduct energy audits
- Apply aspects of energy audit and energy management relevant to their employment responsibilities Duration The Certificate in Energy Management is a one year's programme. ACADEMIC COURSE UNITS
- Energy Scenario & Bridge Course
- Energy Conversion & Systems
- Energy Instrumentation
- Energy Audit

- Power Generation technologies
- Energy Audit and Management II
- Heat Exchange
- Environmental Management
- Research Project
- Project report The main objective of this course is to train students, through multi-disciplinary approach in the