Course title **:** Renewable Energy Project Management
Course credits : 2
No. of modules **:** 2
Module 1: Planning and Analysis
Module 2: Financing and Contract Management

Detailed syllabus:

Module 1: Planning and Analysis

I. Introduction

Definition, need/benefits, projects versus routine production, project life cycle,investigative approach, process group

II. Planning

Project planning matrix, aim oriented project planning, generation and screening of project ideas, capital budgeting, criteria and models for resource allocation

III. Analysis

Market and demand analysis, technical analysis, financial estimates and projections, investment appraisal criteria, cost benefit analysis, risk analysis

Module 2: Financing and Contract Management

I. Financing

Project financing, elements and parties of financing, multilateral and bilateralfinancing of renewable energy project, case studies, carbon markets

II. Contract Management

Contract selection, tendering, negotiation, contract preparation, Power Purchase Agreements (PPAs) contract, Engineering, Procurement, Construction (EPC) contract.

III. Implementation

Project management, network analysis for project management-PERT, CPM and CERT, Fuzzy logic, project material management, evaluation & analysis, implementation & monitoring, performance indices, supply chain management, customer relation management

IV. Review

Control of In-Progress projects, post completion audits, abandonment analysis Social and environmental impact assessment of renewable projects

Evaluation/Assessment scheme:

1. Quizzes – 40% (one at the end of each module)
2. End semester exam – 60% (at the end of course)

Learning outcomes:

At the end of the course the student will be able to:

- Describe a renewable energy project life cycle, and can skillfully map each stage in the cycle
- Identify the resources needed for each stage, including tools and supplementary materials
- Describe the time needed to successfully complete a renewable energy project, considering factors such as task dependencies and task lengths
- Demonstrate effective project execution and control techniques that result in successful projects.