

Course Code	Course Title	L	T	P	C
20SE023	PROJECT FORMULATION AND APPRAISAL	3	0	0	3

PRE-REQUISITE COURSES: NIL

COURSE OBJECTIVES:

This course consists of project formulation, project costing, project appraisal, project financing and privatization of projects. The student acquires knowledge regarding project identification, analysis and reports generation under project formulation topic such as Project cash flows, time value of money and cost of capital under project costing and Net present value (NPV), IRR and Indian practice of investments under project appraisal and financial institutions etc.,

COURSE OUTCOMES:

At the end of the course student will be able to

CO's	Course Outcomes	PO's
1	Apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the conceptualization of engineering models.	1,2
2	Identify, formulate, research literature and solve <i>complex</i> engineering problems reaching substantiated conclusions using first principles of engineering sciences.	1,2
3	Design solutions for <i>complex</i> engineering and <i>design</i> systems, components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.	2
4	Conduct investigations of <i>complex</i> problems including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions.	1,2
5	Create, select and apply appropriate techniques, resources, and modern engineering tools, including prediction and modeling, to <i>complex</i> engineering activities, with an understanding of the limitations.	3

SKILLS:

- ✓ Ability to prepare the DPR Report and Function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings.
- ✓ Ability to understand the impact of engineering solutions in a societal context and demonstrate knowledge of and need for sustainable development.
- ✓ Ability to demonstrate knowledge and understanding building and Industrial building of management and business practices, such as risk and change management, and understand their limitations.

UNIT –I:

PROJECT FORMULATION: Project – Concepts – Capital investments - Generation and Screening of Project Ideas - Project identification – Preliminary Analysis, Market, Technical, Financial, Economic and Ecological - Pre-Feasibility Report and its Clearance, Project Estimates and Techno- Economic Feasibility Report, Detailed Project Report – Different Project Clearances required, Project Cash Flows – Time Value of Money – Cost of Capital

UNIT –II:

PROJECT APPRAISAL: NPV – BCR – IRR – ARR – Urgency – Pay Back Period – Assessment of Various Methods – Indian Practice of Investment Appraisal – International Practice of Appraisal – Analysis of Risk – Different Methods – Selection of a Project and Risk Analysis in Practice.

UNIT –III:

PROJECT FINANCING: Project Financing – Means of Finance – Financial Institutions – Special Schemes – Key Financial Indicators – Ratios.

UNIT –IV:

PRIVATE SECTOR PARTICIPATION: Private sector participation in Infrastructure Development Projects - BOT, BOLT, BOOT - Technology Transfer and Foreign Collaboration - Scope of Technology Transfer..

UNIT –V:

LEGAL REQUIREMENTS: Insurance and Bonding – Laws Governing Sale, Purchase and Use of Urban and Rural Land –Land Revenue Codes – Tax Laws – Income Tax, Sales Tax, Excise and Custom Duties and their Influence on Construction Costs – Legal Requirements for Planning – Property Law – Agency Law– Local Government Laws for Approval – Statutory Regulations. Labour Regulations: Social Security – Welfare Legislation – Laws relating to Wages, Bonus and Industrial Disputes, Labour Administration – Insurance and Safety Regulations – Workmen’s Compensation Act – Indian Factory Act – Andhra Pradesh Factory Act – Child Labour Act - Other Labour Laws.

REFERENCES:

1. Prasanna Chandra, Projects – Planning, Analysis, Selection, Implementation Review, Tata McGraw Hill Publishing Company Ltd., New Delhi. 2006.
2. Joy P.K., Total Project Management - The Indian Context, New Delhi, Macmillan India Ltd., 1992.
3. United Nations Industrial Development Organisation (UNIDO) Manual for the Preparation of Industrial Feasibility Studies, (IDBI Reproduction) Bombay, 1987.
4. Barcus, S.W. and Wilkinson.J.W., Hand Book of Management Consulting Services, McGraw Hill, New York, 1986.