Course title: Project Management			
Course code: NRG 103	**No. of credits:** 3	**L-T-P:** 30-15-0	**Learning hours:** 45
Pre-requisite course code and title (if any):			
Department: Department of Natural and Applied Sciences			
Course coordinator: Dr Ayushi Vijhani	**Course instructor:**		
Contact details: ayushi.vijhani@terisas.ac.in			
Course type: Core	**Course offered in:** Semester 1		

Course Description

The objective of this course is to make the students familiar with the entire life cycle of projects; Planning, Execution and Operation. This would help students prepare themselves for the working in various projects right from conceptualization to delivery. It would help optimize usage of country's resources on various projects; especially in infrastructure domain.

This course guides students through fundamental project management concepts and behavioral skills needed to success-fully launch, lead, and realize benefits from projects in profit and nonprofit organizations. Successful project managers skillfully manage their resources, schedules, risks, and scope to produce a desired outcome. In this course, students explore project management with a practical, hands-on approach through lectures and class exercises. Special attention is given to explain the concepts based on the past experiences of the instructor.

It emphasizes that project management is a professional discipline with its own tools, body of knowledge, and skills.

Course objectives

- Understand project management design, development, and deployment
- Use project management tools, techniques, and skills
- Employ strategies to address the ubiquitous issue of resistance to change
- Align critical resources for effective project implementation
- Understand the implications, challenges, and opportunities of organizational dynamics in project management
- Identify and use key performance metrics for project success
- Understand how to manage project cost, quality, and delivery
- Engage and lead effective project management teams in your organization
- Impart project management knowledge, tools, and processes to your colleagues
- Recognize and mitigate the early seeds of failure in the project lifecycle

Course content

Module	Topic	L	T	P
1.	Introduction to Project Management (Definition, Need/Benefits, achieve business objective, role of Project Manager, project Life Cycle, Integrative approach, process group) Introduction to body of knowledge , PMBOK	2		
2.	Creating a Project Proposal (Establishing Objectives, scoping the boundaries, priorities strategic development, WBS/PBS, responsibility, communication plan)	2	2	
3.	Estimation in Project Proposal (Basic, Time, Cost, Resource, Techniques, Guidelines)	2		
4.	Developing Project Plan (Evaluating and Constructing network, Schedule, Criticality, Gantt Charts, Techniques)	2	3	
5.	Project Proposal Evaluation (Reading, evaluating feasibility–resource, time, cost, idea, quality)	2		
6.	Project Resource Management (Overview and types of resource, Resource constraints & scheduling, Allocation methods, resource vis-à-vis other activities of project	2		

	planning)			
7.	Preparation for presentation (Designing small write-ups–introduction, literature review, materials, methods, results, discussion, summary, conclusions)	2	2	
8.	Presentation skills development (Presenting in a formal meeting with–data, figures, graphs, tables, contents etc.)	2		
9.	Attending presentation and meetings (Expressing freethinking, opinions, judgments (written and oral) and analyses; Formulation of questions; Responding comments and critique given by other)	2	2	
10.	Risk Management (Concept, process, PERT, Contingency planning, funds, time, unexpected changes in control and management)	2		
11.	Time Management (Rationale, Options, Time compression techniques, mapping and managing project cost and time, trade-offs)	2	2	
12.	Project Monitoring and Controlling (Monitoring process (time, cost, resource), control processes, earned value cost/schedule system, variance analysis, CBA and other techniques)	2	2	
13.	Project Closure (Quality assurance, auditing (resources, time, cost), submission, auditing, closure)	4		
14.	Group discussions	2	2	
	Total	**30**	**15**	

Evaluation criteria

- Minor test 25%(Module 1,2,3,4)
- Class exercise 15% (Practical live examples solved in class) (All modules)
- Identification of a project live or hypothetical and carry out PM related SOP's, time schedule development , cost management plan , HR , procurement and close outstages.
- Question / answer sessions on the same project
- Presentation 20% (Topic based presentation submitting the hard as well softcopy) (All Modules)
- Major test 40% (All modules)

Learning outcomes

Manage the scope, cost, timing, and quality of the project, at all times focused on project success as defined by project stakeholders. . Identify project goals, constraints, deliverables, performance criteria, control needs, and resource requirements in consultation with stakeholders.(Minor test 1, class exercise, Presentation and major test)

Pedagogical approach

Assignment, lectures, class presentation

Materials

1. Prasanna Chandra (2011). Projects: Planning, Analysis, Selection, Financing,Implementation and Review, Tata McGrawHill
2. Lewis, James (2002). Fundamentals of Project Management, 2nd ed., American Management Association. ISBN0-8144-7132-3.
3. Project Management Institute (2003). A Guide to the Project Management Body of Knowledge (PMBOK), 3rd ed., Project Management Institute. ISBN1-930699-45-X.
4. Berkun, Scott (2005). Art of Project Management. Cambridge, MA: O'Reilly Media. ISBN 0-596-00786-8.
5. Comninos D &, Frigenti E (2002). The Practice of Project Management - a guide to the business-focused approach. Kogan Page. ISBN0-7494-3694-8
6. Finnerty (2012). Project Financing, John Wiely and Sons

7. Meredith, Jack R. and Mantel, Samuel J. (2002). Project Management: A Managerial Approach, 5th ed., Wiley. ISBN 0-471-07323-7.

Journals

1. Project Management Journal
2. International Journal of Project Management

Case Studies

Additional information (if any)

Student responsibilities

Attendance, feedback, discipline, guest faculty etc.

Course reviewers:

1. Sh. Ritesh Viz , Founder VLE Consultant LLP
2. Sh. K Mal, retd. Principle Chief Engineer, Indian Railway