

FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING

Father Agnel Ashram, Bandstand, Bandra (West), Mumbai-50.

Department of Information Technology

B.E. (I.T./ COMP/ ELEX) (Semester VIII) (2020-2021)

Lecture Plan

Subject: Project Management

Credits: 03

Syllabus:

| Course Code | Course Name | Credits |
|--------------------|---------------------------|----------------|
| ILO8021 | Project Management | 03 |

| Module | Detailed Contents | Hrs |
|---------------|---|------------|
| 1 | Project Management Foundation: Definition of a project, Project Vs Operations, Necessity of project management, Triple constraints, Project life cycles (typical & atypical) Project phases and stage gate process. Role of project manager. Negotiations and resolving conflicts. Project management in various organization structures. PM knowledge areas as per Project Management Institute (PMI). | 05 |
| 2 | Initiating Projects: How to get a project started, selecting project strategically, Project selection models (Numeric /Scoring Models and Non-numeric models), Project portfolio process, Project sponsor and creating charter; Project proposal. Effective project team, Stages of team development & growth (forming, storming, norming & performing), team dynamics. | 06 |
| 3 | Project Planning and Scheduling: Work Breakdown structure (WBS) and linear responsibility chart, Interface Co-ordination and concurrent engineering, Project cost estimation and budgeting, Top down and bottoms up budgeting, Networking and Scheduling techniques. PERT, CPM, GANTT chart. Introduction to Project Management Information System (PMIS). | 08 |
| 4 | Planning Projects: Crashing project time, Resource loading and leveling, Goldratt's critical chain, Project Stakeholders and Communication plan. Risk Management in projects: Risk management planning, Risk identification and risk register. Qualitative and quantitative risk assessment, Probability and impact matrix. Risk response strategies for positive and negative risks | 06 |
| 5 | Executing Projects: Planning monitoring and controlling cycle. Information needs and reporting, engaging with all stakeholders of the | 08 |

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| | projects. Team management, communication and project meetings. Monitoring and Controlling Projects: Earned Value Management techniques for measuring value of work completed; Using milestones for measurement; change requests and scope creep. Project audit. Project Contracting: Project procurement management, contracting and outsourcing. | |
| 6 | Project Leadership and Ethics: Introduction to project leadership, ethics in projects. Multicultural and virtual projects. Closing the Project: Customer acceptance; Reasons of project termination, Various types of project terminations (Extinction, Addition, Integration, Starvation), Process of project termination, completing a final report; doing a lessons learned analysis; acknowledging successes and failures; Project management templates and other resources; Managing without authority; Areas of further study. | 06 |

References

1. Jack Meredith & Samuel Mantel, Project Management: A managerial approach, Wiley India, 7thEd.
2. A Guide to the Project Management Body of Knowledge (PMBOK® Guide), 5th Ed, Project Management Institute PA, USA
3. Gido Clements, Project Management, Cengage Learning.
4. Gopalan, Project Management, Wiley India
5. Dennis Lock, Project Management, Gower Publishing England, 9th Ed.

Assessment:

Internal:

Assessment consists of two tests out of which; one should be compulsory class test and the other is either a class test or assignment on live problems or course project.

End Semester Examination:

Some guidelines for setting up the question paper. Minimum 80% syllabus should be covered in question papers of end semester examination. **In question paper weightage of each module will be proportional to number of respective lecture hours as mention in the syllabus.**

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1. Question paper will comprise of total six question
2. All question carry equal marks
3. Questions will be mixed in nature (for example supposed Q.2 has part (a) from module 3 then part (b) will be from any module other than module 3)
4. Only Four question need to be solved.

Outcomes:

| | |
|-----|---|
| CO1 | Apply selection criteria and select an appropriate project from different options. |
| CO2 | Write work break down structure for a project and develop a schedule based on it. |
| CO3 | Identify opportunities and threats to the project and decide an approach to deal with them strategically. |
| CO4 | Use Earned value technique and determine & predict status of the project. |
| CO5 | Capture lessons learned during project phases and document them for future reference |

CO-PO and CO-PSO Mapping

| Course Outcome | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | PO 11 | PO 12 | PSO 1 | PSO 2 |
|----------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|
| CO1 | 3 | 3 | 3 | 3 | | | | 3 | 3 | 3 | 3 | 3 | 3 | 2 |
| CO2 | 3 | 3 | 3 | | 3 | | | | 3 | 3 | | 3 | 3 | 3 |
| CO3 | 3 | 3 | 3 | 3 | 3 | | | | 3 | 3 | | 3 | 3 | 3 |
| CO4 | 3 | 3 | 3 | 3 | | | | | 3 | 3 | 3 | 3 | 3 | 3 |
| CO5 | 3 | 3 | 3 | | 3 | | | 3 | 3 | 3 | | 3 | 3 | 2 |

1-Low Correlation (Low), 2 – Medium Correlation (Medium), 3 – High Correlation (High)

CO Assessment Tools with Target

| Course Outcome | Direct Methods | | | Indirect Method |
|----------------|----------------|--------|-------------------|--------------------|
| | Test 1 | Test 2 | University Result | Course Exit Survey |
| CO1 | 50% | | 50% | 100% |
| CO2 | 50% | | 50% | 100% |
| CO3 | 50% | | 50% | 100% |
| CO4 | | 50% | 50% | 100% |
| CO5 | | 50% | 50% | 100% |

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Lecture Plan:

| No. of Lectures Planned: | 32 | No. of Classes Taken: | 27 | |
|---------------------------------|--|------------------------------|--------------------|----------------------------|
| Sr. No. | Topic Planned | Planned Date | Actual Date | Delivery Mechanisms |
| 1 | Definition of a project, Project Vs Operations, Necessity of project management, Triple constraints | 28/01/21 | 09/02/21 | PPT + Board |
| 2 | Project life cycles (typical & atypical) Project phases and stage gate process | 29/01/21 | 11/02/21 | PPT + Board |
| 3 | Role of project manager. Negotiations and resolving conflicts. Project management in various organization structures. | 02/02/21 | 12/02/21 | PPT + Board |
| 4 | PM knowledge areas as per Project Management Institute (PMI) | 04/02/21 | 16/02/21 | PPT + Board |
| 5 | How to get a project started, Selecting project strategically, Project selection models (Numeric /Scoring Models and Non-numeric models) | 05/02/21 | 18/02/21 | Board |
| 6 | Project portfolio process, Project sponsor and creating charter; Project proposal | 09/02/21 | 02/03/21 | PPT + Board |
| 7 | Effective project team, Stages of team development & growth (forming, storming, norming & performing), team dynamics | 11/02/21 | 04/03/21 | PPT + Board |
| 8 | Work Breakdown structure (WBS) and linear responsibility chart, Interface Co-ordination and concurrent engineering | 12/02/21 | 05/03/21 | PPT + Board |
| 9 | Project cost estimation and budgeting, Top down and bottoms up budgeting | 16/02/21 | 12/03/21 | PPT + Board |
| 10 | Networking and Scheduling techniques. PERT | 18/02/21 | 16/03/21 | PPT + Board |
| 11 | CPM, GANTT chart | 02/03/21 | 16/03/21 | Board |
| 12 | Introduction to Project Management Information System (PMIS) | 04/03/21 | 18/03/21 | PPT + Board |
| 13 | Crashing project time, Resource loading and levelling | 05/03/21 | 19/03/21 | Board |
| 14 | Goldratt's critical chain, | 12/03/21 | 19/03/21 | PPT + Board |
| 15 | Project Stakeholders and Communication plan | 16/03/21 | 20/03/21 | PPT + Board |

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|----|--|----------|----------|-------------|
| 16 | Risk Management in projects: Risk management planning, Risk identification and risk register. | 18/03/21 | 01/04/21 | PPT + Board |
| 17 | Qualitative and quantitative risk assessment, Probability and impact matrix. | 19/03/21 | 06/04/21 | PPT + Board |
| 18 | Risk response strategies for positive and negative risks | 30/03/21 | 08/04/21 | PPT + Board |
| 19 | Planning monitoring and controlling cycle. Information needs and reporting | 01/04/21 | 08/04/21 | PPT + Board |
| 20 | Engaging with all stakeholders of the projects | 06/04/21 | 09/04/21 | PPT + Board |
| 21 | Team management, communication and project meetings | 08/04/21 | 09/04/21 | PPT + Board |
| 22 | Earned Value Management techniques for measuring value of work completed | 09/04/21 | 15/04/21 | Board |
| 23 | Using milestones for measurement, change requests and scope creep | 15/04/21 | 17/04/21 | PPT + Board |
| 24 | Project audit | 16/04/21 | 17/04/21 | PPT + Board |
| 25 | Project procurement management, contracting and outsourcing | 27/04/21 | 04/05/21 | PPT + Board |
| 26 | Introduction to project leadership, ethics in projects | 29/04/21 | 06/05/21 | PPT + Board |
| 27 | Multicultural and virtual projects. | 30/04/21 | 06/05/21 | PPT + Board |
| 28 | Customer acceptance; Reasons of project termination | 04/05/21 | 07/05/21 | PPT + Board |
| 29 | Various types of project terminations (Extinction, Addition, Integration, Starvation) | 06/05/21 | 08/05/21 | PPT + Board |
| 30 | Process of project termination, completing a final report | 07/05/21 | 08/05/21 | PPT + Board |
| 31 | Doing a lessons learned analysis; acknowledging successes and failures; Project management templates and other resources | 11/05/21 | 09/05/21 | PPT + Board |
| 32 | Managing without authority; Areas of further study | 13/05/21 | 10/05/21 | PPT + Board |