

Engineering Exploration

Semester II

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116U06L106

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Engineering Exploration

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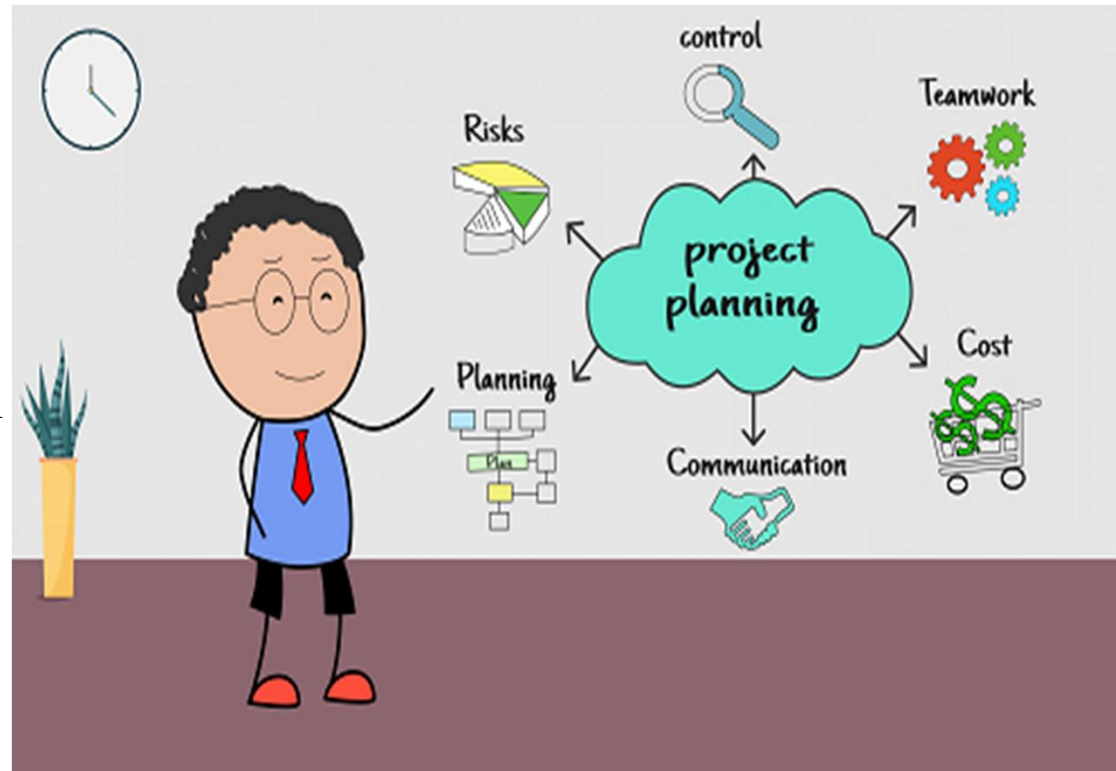
Project

After the successful completion of the course the student will

CO4. Execute the project ethically in the project management paradigm.

Project Planning

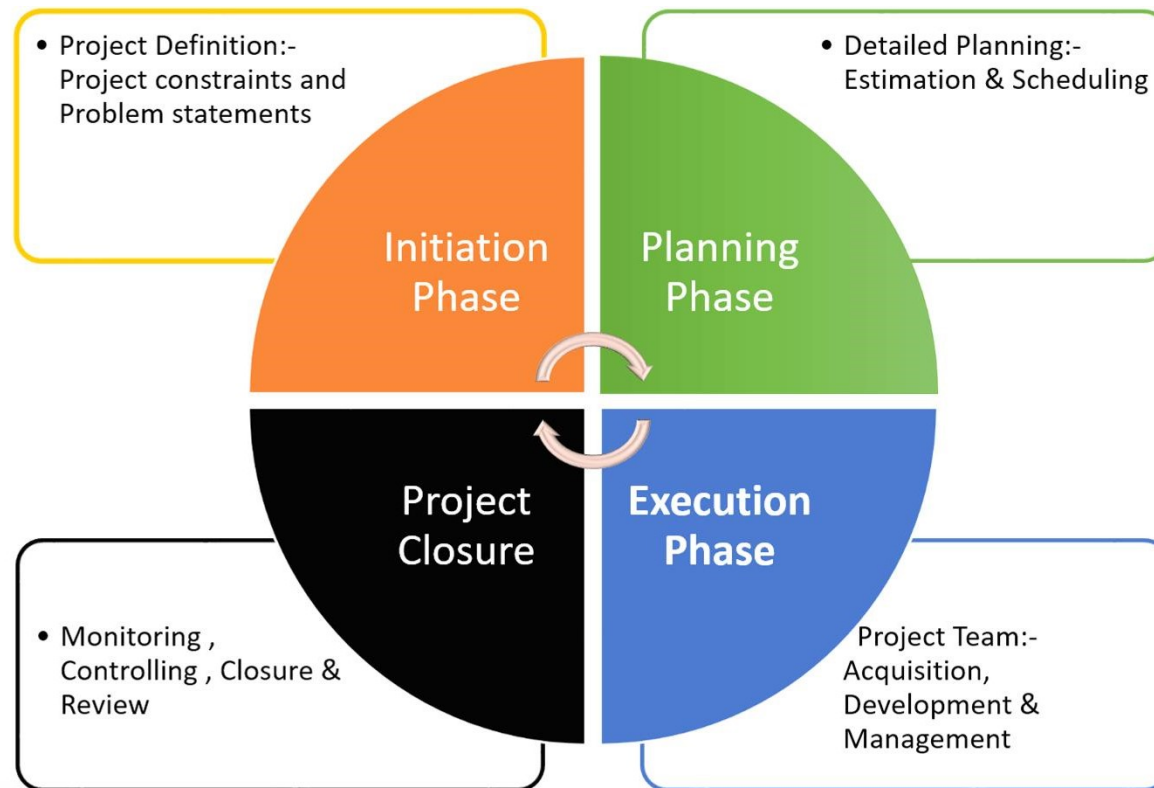
- Key Concepts
- Project Planning,
- Time management tools,
- Significance of documentation



Project

- Important aspects of a project:
 - Starting date
 - Specific goals and conditions
 - Defined responsibilities
 - Budget
 - Planning
 - Fixed end date
 - Stakeholders involved

Project Lifecycle



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Project Management



Project management

is the practice of initiating, planning, executing, controlling, and closing the work of a team to achieve specific goals and meet specific success criteria at the specified time

Project Planning

- Discuss in your team and list some problem one may face due to lacunas in planning the project

**If you fail to plan
you are planning to fail.**

Project Planning

Project planning is the process of defining your objectives and scope, your goals and milestones (deliverables), and assigning tasks and budgetary resources for each step.

Keys in Project Planning

- Think of your plan as a roadmap
- Break the project into a list of deliverables
- Talk to your team
- Identify Risks
- Create Budget
- Add Milestones

Project Planning Tools

Timeline

A timeline is a display of a list of events in **chronological** order.

It is typically a **graphic design** showing a long bar labelled with **dates** alongside itself and usually events.

Explore : Free online timeline maker tools

Gantt Chart

Task Name	Q1 2019			Q2 2019		Q3 2019
	Jan 19	Feb 19	Mar 19	Apr 19	Jun 19	Jul 19
Planning						
Research						
Design						
Implementation						
Follow up						

Project Planning

Gantt chart is a visual view of tasks scheduled over time.

Gantt charts are used for planning projects of all sizes and they are a useful way of showing what work is scheduled to be done on a specific day.

Explore :

<https://www.youtube.com/watch?v=C3aM4suNHGc> 7 min

<https://www.youtube.com/watch?v=tU5s7R3aAto> 3.5 min

https://www.youtube.com/watch?v=TjxL_hQn5w0 : 8 min

Search for online gantt chart tools : smartsheet

Make gantt chart using excel

<https://www.youtube.com/watch?v=un8j6QqpYa0>

Gantt chart Example



▼ = Milestones

The creation of a Gantt chart is useful for planning and scheduling your project; it will enable you to identify the shortest completion time for your project (the 'critical path'), help you to monitor your progress and prompt you to take action when the timetable slips.

Project Planning Tool- Gantt chart task

1. Create a Task Table.

List each task in your Project. Include the task name, given start date, start of work , duration of work, and submission date and given deadline as Term end.

1. Prepare Gantt Chart for progress of your submissions.



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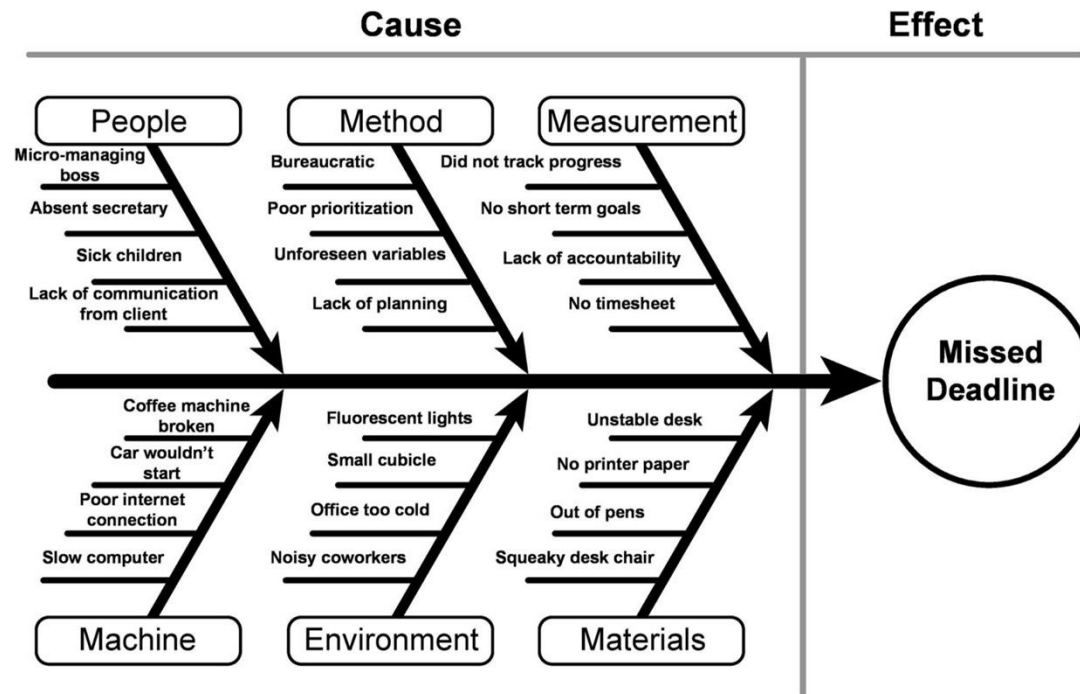
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Fishbone diagram for project management

- Fishbone diagram or Ishikawa diagram or cause and effect diagram is a modern quality management tool that explains the cause and effect relationship for any issue that has arisen or that may arise in projects.
- visual representation of all the possible causes for a problem to analyze and find out the root cause.
- Find causes w.r.t: **Man, Machine, Method, Material, Measurement, Mother Nature**

Fishbone diagram- Missed deadline in project



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Fishbone diagram- Task

Draw a fishbone diagram for problem given below:

1. You failed in exam
2. New product developed by you is of low quality
3. Any topic of your choice..

Documentation

Documentation is a vital part of project management.

It is substantiated by the essential two functions of documentation:

- to make sure that project requirements are fulfilled
- to establish traceability with regard to what has been done, who has done it, and when it has been done.

Documentation lays foundation for **quality, traceability, and history** for both the individual document and for the entire project documentation.

It is also extremely important that the documentation is well arranged, easy to read, and adequate.

Reflect what happens if ...

- User manual you are referring does not give some vital information.
- Code that you are supposed to debug has no comments....
- Think of different difficulties you may come across due to bad documentation.

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