

Informatics Project Management

EXAM NOTES

LECTURE 1 – Intro to Project Management

Project → a temporary endeavor undertaken to create a unique product, service or result

- Requires 4 things:
 - An organised set of work efforts
 - Progressively elaborated detail
 - A defined beginning & ending
 - A unique combination of stakeholders
- Projects are subject to time & resource limitation

Stakeholders → an individual or org who may affect, be affected by or perceive itself to be affected a decision, activity or outcome of a project

Project Management → the application of knowledge, skills, tools & techniques to project activities to meet project requirements

- Work processes: initiate plan, execute, monitor/control, close
- Trade-offs among: Scope, Schedule, Quality Resources and Cost Risks

Projects vs Operations: Projects are temporary, have routine & unique characteristics

Operations are ongoing work

Soft Skills & Hard Skills:

- Soft skills activities: Communication, Leadership, Conflict Resolution
- Hard Skills Activities: Risk Analysis, Quality Control, Scheduling Work, Budgeting Work

Authority & Responsibility

- 1 person being assigned accountability
- Project managers negotiate with functional managers
 - Functional managers → someone with management authority over an org unit. The manager of any group that actually makes a product or performs a service
- Strong communication & leadership skills to persuade subordinates

Project Life Cycle → the series of phases that a project goes through from its initiation to its closure. PLC has 4 stages:

- Selecting & initiating – define a project/new phase by obtaining authorisation

- Planning – establish project scope, refine objectives & define actions to attain objectives
- Executing – complete work defined to satisfy project specifications
 - Monitoring & Controlling – track, review & regulate progress & performance, identify changes required & initiate changes
- Closing and realising – finalise all activities to formally close the project of phase
 - A project must gain approval from one stage to the next
 - Projects are measured at additional points:
 - Selection, Progress Reporting, Benefits realisation

PMBOK's 10 Knowledge Areas:

- Integration mgmt. – processes & activities to identify, define, combine, unify & coordinate various processes & project mgmt. activities
- Scope mgmt. – processes to ensure that the project includes all the work required & only the work required, to complete the project successfully
- Schedule mgmt. – processes to manage timely completion of the project
- Cost mgmt. – processes involved in planning, estimating, budgeting, financing, funding, managing & controlling costs so that project can be completed within the approved budget
- Quality mgmt. – processes & activities of the performing org that determine quality policies, objectives & responsibilities so that project will satisfy the needs for which it was undertaken
- Resource mgmt. – processes that organise, manage & lead the project team
- Communication mgmt. – processes to ensure timely & appropriate planning, collection, creation, distribution, storage, retrieval, management, control, monitoring & ultimate disposition of project information
- Risk mgmt. – processes of conducting risk mgmt. planning, identification, analysis, response planning and control
 - To increase/decrease the likelihood & impact of positive/negative events in the project
- Procurement mgmt. – processes to purchase or acquire products, services or results from outside the project team
- Stakeholder mgmt. – processes to identify the people, groups, or orgs, that could impact or be impacted by the project, analyse their expectations & impact, and develop strategies for engaging them and managing conflicting interests

For scalability of Project Tools, all projects require 5 things:

- Project specs
- Understanding of work involved
- Budget & schedule determinations
- Assignment of available workers to tasks
- Project management

LECTURE 2 – Project Selection & Prioritisation

6 Mission Statement Considerations:

- Purpose → why an org exists
- Core Values → how decisions will be made
- Beliefs → how people will be treated & what leaders stand for
- Culture → how members should act
- Primary business areas → what business the org engages in
- Primary customers → which group of ppl need to be satisfied

2 Methods of Selecting Projects:

- Financial models (Cost-Benefit Analysis) – ensure cost & return perspective
 - Net Present Value (NPV) – most accepted model
 - Discount the expected future value
 - Subtract discounted costs from discounted benefits
 - Benefit-Cost Ratio (BCR)
 - Divide the cash flow by the initial cash outlay
 - A ratio above 1.0 = project is expected to profit
 - Internal Rate of Return (IRR) – higher IRR is better
 - % return expected on investment
 - Ratio above current cost capital
 - Payback Period (PP)
 - Time required to pay back initial project investment
- Scoring models – used when 5 criteria exist:
 - Identify potential criteria
 - Determine mandatory criteria
 - Weight criteria
 - Evaluate projects
 - Sensitivity Analysis

Project Charter → an informal contract between the project team & sponsor

- Project Charter has 4 purposes:
 - Authorise the project manager to process
 - Help to develop a common understanding
 - Create commitment
 - Screen out poor projects
- 11 Elements in Project Charter:
 - Title - Risks/assumptions/constraints
 - Scope Overview - Spending approvals/budget estimates
 - Business Case - Communication plan requirements
 - Background - Team Operating Principles
 - Milestone Schedule - Lesson Learned

- Signatures & Commitment

LECTURE 3 – Project Scope Management

Requirement → a condition/capability needed by a user to solve a problem or achieve an objective that satisfies a standard, specification or any other formally-documented need

Collect Requirement → a systematic effort to understand & analyse stakeholder needs to define & document these needs & requirements with a focus on meeting project objectives

Standard methods for obtaining & documenting requirements:

- Stakeholders meetings - Surveys - Reference Documents
- Interviews - Observations - Market Analysis
- Focus Groups - Prototypes - Competitive Analysis
- Questionnaires - Industry Standards - Client Requests
- Standard Specifications

Work Breakdown Structure (WBS) → Tool to progressively divide project deliverables into smaller pieces

- Identifies all deliverables
- A framework for further planning, execution & control
- Why use a WBS?
 - Ensures all parts of projects are considered
 - Adds discipline & visibility to project planning
 - Basis for planning schedule, resources, cost, quality & risk
 - Useful in determining where & why problems occur
 - Helpful in project communications
- WBS Component → an entry in the WBS that can be at any level
- WBS Dictionary → document provide detail info about every work package including, deliverable details, activity, scheduling info, person responsible, resources required, risks & predecessor & successor activities

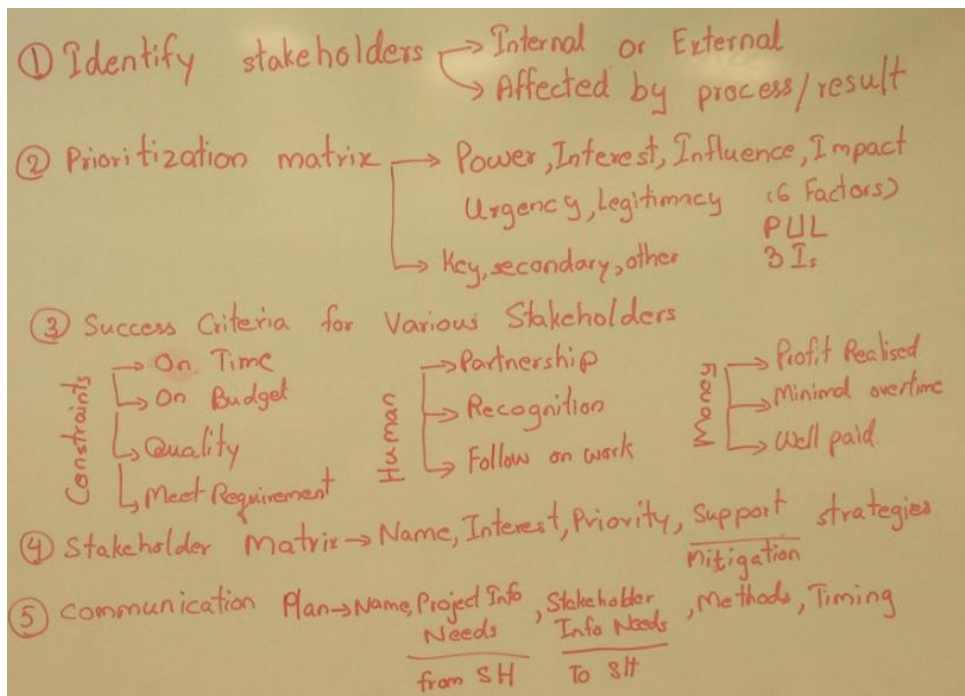
Establish Change Control → a system of managing & controlling changes & modifications to project plan & project deliverables

- Document potential changes to a project with a change request
- Every change to a project must be formally proposed

Baseline → approved project plan, mostly consisting of scope, schedule & cost; shouldn't be altered without going through integrated change control system

LECTURE 5 – Project Stakeholder & Communication Management

Identify Stakeholders → the process of determining the individuals & groups who might impact or be impacted by some aspect of the project (REFER TO TUTORIAL NOTES)



Stakeholder Analysis → a stakeholder identification technique composed of gathering & evaluation info to determine whose interests should be emphasised throughout the project

Stakeholder Register → a repository of info regarding all project stakeholders

MODULAR COURSES: PROJECT STAKEHOLDER MATRIX			
STAKEHOLDER	INTEREST IN PROJECT	PRIORITY	SUPPORT/MITIGATION STRATEGIES
Vice Chancellor	Make major improvements in university services and avoid government intervention.	Key	Consult on target improvement areas—use his power to support key and difficult changes.
Deans of Faculty	Protect against changes that could influence their power base. Reduce detrimental impact on faculty activities.	Key	Work with nominated representatives to identify and seek out solutions to barriers to change. Establish and communicate wins for faculties.
Academic Registrar (AR)	Develop the power base of AR—demand and obtain quality improvements on courses across the university.	Key	Increase visibility and power of AR. Increased visible support for AR regarding resources and political support from senior management.
Lecturers	Be kept informed of impacts upon them. Reduce or resist changes that are considered negative to them.	Secondary	Identify supportive champions. Create, test, and deliver carefully considered communication strategy.
Student support	Be able to prepare and train staff on how to roll out new schemes to current and prospective students.	Other	Help student support guide staff through process—develop training programs and online web support.
Students	University shows signs of improvement and ensures students' needs are considered.	Other	Set up consultation and communication groups. Keep informed.

Stakeholder Engagement Assessment Matrix – Primary tool comprises stakeholder mgmt. plan

- Define how to engage & manage stakeholders throughout project lifecycle