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COURSE BROCHURE

Design Review and Technical Decision Leadership Training Course for Engineering Leads

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Dar es Salaam

jupiterprime.uk

info@jupiterprime.uk

Registered in the United Kingdom and Saudi Arabia

Design Review and Technical Decision Leadership Training Course for Engineering Leads

Ref: 2303_85876 **Date:** 26 – 30 July 2027 **Location:** Dar es Salaam **Fees:** 5300 GBP

Design Review and Technical Decision Leadership is a 1-week training course for engineers moving into their first lead role, and it produces a Team Design Review Charter with a decision record template. Engineering groups now ship more interdependent systems with leaner senior cover, so the quality of review and trade-off decisions rests on new leads. Jupiter Prime Training shaped this Design Review and Technical Decision Leadership course around the judgement calls new engineering leads face.

Why Design Review and Technical Decision Leadership Matters Now

Three forces shape design review leadership today: systems that integrate software, hardware and suppliers, so one weak interface decision spreads across teams; tighter schedules that tempt groups to skip or rubber-stamp reviews; and a generation of senior engineers retiring with undocumented reasoning. A group whose leads chair reviews well catches defects early, records why options were rejected and grows reviewers behind them. A group that leaves reviews to habit repeats old mistakes. The course draws on stage-gate review practice, architecture decision records ADRs and weighted trade-off matrices.

Who Gains Most from Design Review and Technical Decision Leadership

- Engineers newly responsible for chairing design reviews within their discipline
- Leads who now sign off technical options that peers used to decide together
- Senior specialists asked to guide junior engineers through their first designs
- Project engineers balancing cost, schedule and performance choices for a client
- Discipline leads coordinating interface decisions with neighbouring engineering teams

New leads from one engineering function gain most together, because a shared review charter then spans its disciplines.

Design Review and Technical Decision Leadership Capabilities

Participants practise reviews that challenge designs and close with recorded engineering decisions.

- Design a review agenda with entry criteria, roles and exit conditions — project gate approvals
- Weigh competing technical options with a scored trade-off matrix — sponsors and clients
- Write decision records that capture context, options and consequences — future maintainers
- Facilitate challenge from senior and junior reviewers without losing pace — review quality
- Communicate a technical decision and its risks to non-engineers — project sponsors
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Build reviewing skill in junior engineers through shadowing and feedback — talent pipeline

Key Design Review and Technical Decision Leadership Terms

- Design review — a structured examination of a design against requirements, held at a defined stage before work proceeds.
- Architecture decision record ADR — a short document stating a technical decision, its context, options and consequences.
- Trade-off matrix — a table that scores design options against weighted criteria such as cost, performance and risk.
- Entry criteria — the conditions a design package must meet before a review may start.
- Action closure — confirming that every review finding has an owner, a response and verified completion.
- Reversible decision — a choice that can be undone cheaply, so it needs lighter review than a one-way commitment.

Design Review and Technical Decision Leadership Day by Day

Day 1: From Expert Contributor to Engineering Lead

- Peer-to-Lead Transition Map — Which Technical Calls Now Belong to You
- Expert Habits Audit — When Solving Problems Yourself Slows the Group
- Decision Rights Grid for Engineering Teams — Lead, Consult or Inform
- Cases From Infrastructure and Manufacturing Projects — Reviews That Missed Defects
- Reversible Versus One-Way Decisions — Sizing the Review Effort

Day 2: Running Design Reviews

- Stage-Gate Review Structure — Concept, Preliminary and Detailed Design Checkpoints
- Entry Criteria and Review Packages — Deciding When a Design Is Ready
- Reviewer Selection and Roles — Chair, Author, Challenger and Scribe
- Questioning Techniques for Design Challenge — Probing Assumptions Without Blame
- Finding Classification and Action Closure — Owners, Responses and Verification

Day 3: Weighing Technical Trade-Offs

- Weighted Trade-Off Matrix — Scoring Cost, Performance, Schedule and Risk
- Sensitivity Checks on Criteria Weights — Testing How Robust a Choice Is
- Interface and Dependency Mapping — Decisions That Affect Other Teams
- Technical Debt Register — Accepting Shortcuts Consciously and Visibly
- Escalation Thresholds for Disputed Designs — When to Refer Upwards

Day 4: Recording Decisions and Growing Engineers

- Architecture Decision Records — Writing Context, Options and Consequences
- Explaining Technical Choices to Sponsors — Risk Language for Non-Engineers
- Reviewer Shadowing Ladder — Growing Junior Engineers Into Review Roles
- Technical Feedback Conversations — Critiquing Work While Keeping Ownership
- Engineering Skills Matrix — Planning Stretch Assignments for the Group

Day 5: Practising the Team Design Review Charter

- Mock Design Review Rehearsal — Chairing a Contested Interface Decision
- Trade-Off Matrix Defence — Presenting a Recommendation Under Challenge
- Decision Record Peer Critique — Sharpening Clarity for Future Readers
- Reviewer Development Plan — Naming Two Engineers to Step Up
- Team Design Review Charter — Final Version With Decision Record Template

Applying Design Review and Technical Decision Leadership After the Course

- Chair the next design review using entry criteria, reviewer roles and an action closure log, then compare findings with the previous review.
- Write architecture decision records for the three most debated technical choices on a live project and walk the group through them.

Design Review and Technical Decision Leadership Questions FAQ

What is design review and technical decision leadership, and why does it matter now?

Design review and technical decision leadership is the skill of chairing reviews and closing engineering choices with recorded reasoning. It matters now because integrated systems, tight schedules and retiring experts make every unreviewed decision more costly.

Which roles gain most from design review and technical decision leadership training?

Engineers in their first lead role gain most, especially those chairing reviews or guiding junior colleagues.

How does design review and technical decision leadership differ from a first-time manager course for engineers?

Design review and technical decision leadership centres on the technical forum: review structure, trade-off scoring and decision records. A first-time manager course covers broader people administration such as appraisals and budgets.

What do you bring back from design review and technical decision leadership training?

You bring back a review charter for your group, a decision record template, a scored trade-off example from your own work and a plan to grow two engineers into reviewers.

Design Review and Technical Decision Leadership: The Way Forward

The Team Design Review Charter first informs how the next gate review is prepared, chaired and closed. New leads, their engineering managers and the reviewers they nominate use it on live projects. After its first use, revisit the trade-off weights and review entry criteria, since project pressures change what deserves scrutiny.