Project Requirements and Quality Management - Quick Review

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Robert Clines · Lectures through October 19. **This is a bounded transcript synthesis, not verified coverage of every workbook module.** Remaining textbook preparation is labeled. Use the Cumulative Guide and Source Index for context and corrections. References use PDF-viewer pages and recording-relative times.

Page key

Requirements and role distinctions

Term	Recall
Elicitation	Actively uncover and clarify actual needs; do more than record expressed wants.
PM	Integrate delivery and manage agreed scope, schedule, finances, quality, risks and resources.
BA	Understand the problem, elicit/analyze needs and requirements, compare solutions and evaluate value.
Need	Underlying business, personal or operational problem/opportunity.
Requirement	A usable representation of a need; specific enough to guide design and verification.
Feature	A service or characteristic the solution provides.
Business requirement	Organizational goals, objectives and outcomes: why change and how success is assessed.
Stakeholder requirement	Needs of a stakeholder or group required to achieve business outcomes.
Solution requirement	Capability or quality the solution must provide.
Transition requirement	Temporary capability/condition required to move to the future state.
Functional requirement	What the solution does.
Non-functional requirement	A quality or performance attribute: how well it does it.

Instructor emphasis: functional versus non-functional. *(Oct 7, 00:17:05-00:19:42; segments 44-48.)* (Workbook, PDF pp. 53-55 and 87-90.)

Framework recall

Framework	Recall
Three project-success safeguards	Clear objectives, sufficiently defined requirements, disciplined change control.
Six competing constraints	Scope, schedule, budget, risk, quality, resources.
Five PM focus areas	Initiating; planning; executing; monitoring and controlling; closing.
Seven domains used in this course	Governance; scope; schedule; finance; stakeholders; resources; risk.
Six BA knowledge areas	Planning/monitoring; elicitation/collaboration; requirements life cycle; strategy; requirements analysis/design; solution evaluation.
Six BA competencies	Analytical thinking/problem solving; behavioral characteristics; business knowledge; communication; interaction; tools/technology.
Requirements collection stages	Elicitation; analysis; documentation; verification.

Instructor emphasis: constraints, domains and the domain/focus-area reference table. The workbook's "8 domains" sentence conflicts with its seven-item list. (Workbook, PDF pp. 26-28, 56 and 91.) *(Oct 5, 01:22:37-01:49:27; segments 208-267.) (Oct 12, 01:54:16-01:58:22; segments 284-298.)*

Requirement-quality checks

Characteristic	Recall question
Consistent	Does it contradict another requirement?
Complete	Is the needed information present?
Unambiguous	Is there one agreed interpretation?
Correct	Does it represent the actual need?
Specific	Is it detailed enough to design to?

Characteristic	Recall question
Feasible	Can it be achieved within project constraints?
Verifiable	Is there an agreed way to test/check it?
Traceable	Does it link back to a need and forward to implementation/verification?
Unique	Is it stated once with a stable ID?
Prioritized	Is its relative importance agreed?

(Workbook, PDF pp. 54 and 87.) *(Oct 7, 00:09:36-00:12:46; segments 28-34.)*

Elicitation and prioritization

Technique/concept	Recall
Fishbone	Organize possible causes; investigate rather than assume proof.
Pareto	Rank measured categories to focus on the vital few; 80/20 is a heuristic.
Swim lanes	Make responsibilities and cross-role handoffs visible.
Interview	Individual depth; listen, probe and confirm understanding.
Observation	Actual work, workarounds and unspoken basic needs.
Survey	Breadth; neutral questions, suitable sample and pilot testing.
Workshop	Shared discovery, conflict resolution and prioritization.
Brainstorming	Generate ideas without criticism or evaluation.
Idea reduction	Clarify, combine duplicates, organize and prioritize.
Multi-voting	Allocate votes and rank the resulting totals.
Nominal group technique	Structured individual selection/ranking to reduce domination and groupthink.
Kano implicit/basic	Absence causes dissatisfaction; presence is expected.
Kano explicit/performance	Satisfaction tends to increase as fulfillment increases.
Kano delighter	Absence is usually acceptable; presence can strongly delight.
Kano indifferent	Little or no effect on customer satisfaction.

Technique/concept	Recall
Kano reverse	Providing the feature reduces customer satisfaction.
Business rule	Policy/logic the business and solution must enforce.
Design constraint	A restriction on implementation choices or development processes.

Instructor emphasis: process-model questions, stakeholder decision authority, awareness of suitable elicitation techniques. A “gold star” for the lecturer's migration program is not an exam star. (Workbook, PDF pp. 56-68 and 94-102.) *(Oct 7, 00:37:10-02:02:11; segments 86-280.)*

Modeling and scope

Term	Recall
ERD	Model entities/data and their relationships, cardinality and optionality.
State transition	Model states and events that trigger movement between them.
Actor	External role/entity interacting with the system; can be human, system or device.
Scenario	One concrete path of actor/system interaction.
Use case	Actor goal with interaction behavior, often including alternate/exception paths.
Association	Link indicating which actor participates in which use case.
Discovery matrix	Cross-reference requirements and actors to find missing coverage.
WBS	Hierarchical decomposition of total project scope into deliverable work.
100% rule	Include all required work and only required work at each level.
Work package	Work at the lowest WBS level selected for management.
Three decomposition tests	Can you schedule it, resource it, and describe its specific deliverable?
WBS creation methods	Top-down; bottom-up; standards; templates; suitable combinations.

Instructor emphasis: actor/use-case associations and WBS development, design and requirement links. (Workbook, PDF pp. 68-74, 107 and 119-133.) *(Oct 7, 02:24:41-02:44:31; segments 331-372.) (Oct 12, 00:02:27-00:51:41; segments 12-138.)*

Quality taught so far

Concept	Recall
Quality	How well inherent deliverable characteristics support agreed project objectives.
Grade	Category/rank for similar functional use with different technical characteristics.
QA	Evaluate and improve the process used to produce the result.
QC	Measure/test/inspect the deliverable against agreed criteria.
Embed quality	Build quality into processes and deliverables from the beginning.
Gold plating	Add unrequested scope/functionality in hopes of increasing satisfaction.
Controlled adaptation	Assess and approve change; update records and expectations.
Performance	Function as intended.
Conformity	Meet specifications and fit the use.
Reliability	Perform consistently over time.
Resilience	Cope with disruption and recover.
Satisfaction	Meet user-experience expectations.
Uniformity	Maintain parity/consistency across comparable instances.
Efficiency	Avoid unnecessary resource use.
Sustainability	Consider long-term economic, social and environmental effects.
Compliance	Meet applicable regulatory, industry and organizational obligations.

Instructor emphasis: low quality is a problem; low grade is not necessarily a problem. **Course wording:** plan quality; manage quality assurance; monitor/control quality. (Workbook, PDF pp. 136-145.) *(Oct 12, 01:17:13-01:53:46; segments 208-282.) (Oct 12, 02:05:21-02:22:21; segments 329-374.)*

October 14: scope and quality planning

Term/process	Recall
Scope statement	Product scope, deliverables, acceptance criteria and explicit exclusions.

Term/process	Recall
Metric traceability	Connect each metric to a requirement and WBS element.
Quality management plan	Tailored project approach to organizational standards, activities, resources and responsibilities.
Six quality-planning steps	Stakeholders; needs; negotiate requirements; standards/criteria; tasks/responsibilities; quality plan.
Usable quality metric	What is measured, acceptable threshold and measurement method; define conditions, ownership and data.
QFD / House of Quality	Relate customer needs to features/technical characteristics, relationships, targets and tradeoffs.
QC workflow	Identify result; select tools; collect data; compare with standard; respond.
QC plan	Purpose/standard; measurement method/owner/frequency; response or escalation trigger.
Passed inspection	Verified deliverable can proceed to formal acceptance; checking and acceptance are distinct.

Instructor study guidance: recognize the purpose of QFD rather than learn to construct the complete matrix; make QA/QC and their measurable criteria explicit. Other useful tools are not automatically exam-designated. *(Oct 14, 00:49:14-00:49:35; segment 124.) (Oct 14, 01:11:05-01:12:39; segments 180-183.)* (Workbook, PDF pp. 152-156 and 171-178.)

October 14: seven QC tools and sampling

Tool/concept	Recall
Fishbone / Ishikawa	Organize possible causes of an effect; investigate before treating them as proven.
Flowchart	Show process sequence and decisions; diamond = decision, rectangle = task, oval = start/end.
Check sheet / tally sheet	Collect observations consistently; record who, when and where.
Pareto diagram	Descending categories plus cumulative contribution; identify measured priorities, not a forced exact 80/20.
Histogram	Frequency distribution of continuous measurements; spread and shape, not time sequence.
Control chart	Process behavior over time; investigate points outside limits or the course's seven-on-one-side signal.
Scatter diagram	Paired measurements to explore a relationship; correlation does not prove causation.

Tool/concept	Recall
Specification/tolerance	Requirement or acceptance boundary, distinct from a process-control limit.
Producer risk	Rejecting a good lot: Type I/alpha.
Consumer risk	Accepting a bad lot: Type II/beta.

The instructor's tool list and sampling/control-chart discussion are supported by the workbook. Check-sheet details and additional histogram/scatter examples come from the shared lesson and retain that provenance. *(Oct 14, 01:33:00-01:41:25; segments 207-226.) (Oct 14, shared lesson, 01:48:53-02:04:26; segments 249-290.)* (Workbook, PDF pp. 173-176.)

October 14: QA and review planning

Term/process	Recall
QA workflow	Identify review aspect; select type; set scope/schedule; conduct review; initiate changes.
Quality audit	Structured, independent check of compliance with project/organizational policies and processes.
Team review	Team work output/progress; often frequent and short.
Formal review	Specific deliverable; plan participation, criteria and signoff.
Management / phase gate	Phase-level or major go/no-go decision.
Review-plan row	Focus, technique/type, owner, date/frequency and scope.
QA techniques	Surveys, walkthroughs, focused inspections and roundtables; type and technique are different.
Quality responsibility	Everyone on the project team; specialists support that responsibility.

Use QA = process and QC = deliverable checking. The broad QA-template title does not turn every product inspection into a process audit. *(Oct 14, 02:11:04-02:26:22; segments 313-346.)* (Workbook, PDF pp. 160-161 and 179-181.)

October 19: improvement and investigation

Term	Recall
Effectiveness	Achieve the intended goals and useful results: do the right things.
Efficiency	Compare output/value with resources consumed: do things right.
PDCA Plan	Set the objective, baseline/benchmark, criteria and improvement plan.
PDCA Do	Execute the plan/trial and investigate problems and alternatives.
PDCA Check	Compare results with the original objective and criteria.
PDCA Act	Formalize successful changes or refine the solution and repeat.
External benchmarking	Competitive, functional and generic comparisons outside the organization.
Benchmarking process	Decide the measure; plan; understand the process; collect; analyze; act; periodically reevaluate.
Symptom	An observed effect or condition that still needs explanation.
Physical cause	A tangible component or material fails.
Human cause	A needed action is omitted or performed incorrectly.
Organizational cause	A faulty process, policy or system of responsibility contributes to the problem.
RCA sequence	Define factually; gather data; ask why; identify causes; choose corrections; implement; monitor.
Restoration versus prevention	Resolve the immediate incident and change what allowed it to recur.

(Oct 19, 00:00:58-00:12:33; segments 3-25.) (Oct 19, 00:30:04-00:43:22; segments 95-166.) (Oct 19, 01:04:53-01:12:40; segments 238-254.) (Oct 19, 01:59:55-02:01:55; segments 395-398.) (Workbook, PDF pp. 184-190 and 198-210.)

Tool or approach	Recall
Five Whys	Follow evidence-supported causal links; the number of questions can vary.
Fishbone / Ishikawa	Organize possible causes; investigate before treating a branch as established.
Flowchart symbols	Oval: start/end; rectangle: step; diamond: decision.

Tool or approach	Recall
Tree diagram	Decompose an objective or problem into smaller parts.
Pareto analysis	Rank measured contributions and cumulative percentages; do not force an exact 80/20 result.
Scatter diagram	Explore paired numeric variables; correlation does not establish cause.
Brainstorming	Generate diverse ideas with equal participation before evaluating them.
Groupthink	Conformity displaces critical thinking and suppresses dissent or alternatives.
Nominal group technique	Silent ideas; round-robin sharing; private voting; tabulation/reporting.
Affinity diagramming	Group related ideas and label the categories during or after brainstorming.
TQM principles	Customer-defined quality; management responsibility; systematic process analysis; continuous improvement throughout the organization.
Six Sigma focus	Reduce variation and defects using data and DMAIC.
Kaizen	Small, continuing improvements involving people across the organization.
Genchi Genbutsu	Go to the source and observe the actual work.

(Oct 19, 01:12:44-01:59:51; segments 255-394.) (Oct 19, 02:01:58-02:07:21; segments 399-413.) (Workbook, PDF pp. 190-195 and 211-230.) Kaizen and Genchi Genbutsu spellings come from PDF p. 230. A single failed component does not prove a human cause. The oversized-hole example and the universal-sounding 50-100-point scatter rule are not graded facts. The IBM shared lesson's communication/logging advice is media material even though its narration carries the instructor's speaker label.

Core recall and remaining textbook preparation

The existing recall pairs below are retained. PDCA, DMAIC, benchmarking, RCA, TQM and Lean now have October 19 lecture support. Vision-scope documentation and detailed Module 8-9 project-control preparation remain textbook supplements; requirements traceability also has October 14 support.

Term/process	Recall
Vision-scope document	Agreed solution, features and boundaries; supports stakeholder expectations.
Requirements traceability	Connect needs, requirements, deliverables and verification evidence; October 14 reinforces the metric/WBS link.

Term/process	Recall
PDCA	Plan; Do; Check; Act.
DMAIC	Define; Measure; Analyze; Improve; Control.
Internal benchmark	Comparison within the organization.
Competitive benchmark	Comparison with a direct competitor.
Functional benchmark	Comparison of a similar function elsewhere.
Generic benchmark	Comparison across unrelated industries/functions.
RCA	Investigate supported root causes and act to prevent recurrence.
TQM	Customer-defined quality and organization-wide continuous improvement.
Lean	Reduce waste while protecting/improving value.
Control factor	A selected metric for comparing performance with the plan.
Threshold	Defined acceptable variance or action/escalation boundary.
Configuration management	Keep characteristics, versions and approved changes aligned.

(Workbook, PDF pp. 76-81, 183-195 and 233-261.)

Corrections and traps

- “BABIC” is not the guide name to learn; the textbook identifies **BABOK**.
- “Plan, view, check, act” is a transcription issue; the textbook confirms **Plan, Do, Check, Act**.
- The regional Pareto percentages discussed in class total **97.5%**, not 100%. Do not invent missing data.
- A fixed WBS depth, a universal plus/minus 30% ROM range, or the instructor's requirement-review scoring heuristic is not a general standard.
- *Verified* versus *validated deliverable* wording differs between the workbook table and lecture. Product checking and stakeholder acceptance should remain distinguishable.
- The number/location of PMBOK principles, table/page references, and historical attribution details have not been independently checked against the actual PMBOK 8th edition.
- Passing an exact-quote validator proves source matching, not correctness of every paraphrase or universal applicability of the lecturer's examples.
- October 14 segment 136 reverses the repeated QA/process versus QC/product explanation. Keep that passage flagged; use the repeated distinction and workbook support for recall.

- The lecture's bell-curve percentages and Six Sigma defects-per-million target are different kinds of measure, not interchangeable conversions. No disputed conversion is graded here.
- A check sheet collects data; a checklist verifies specified checks. The service example's uptime action threshold is not established as a statistically derived chart limit.
- The shared video's problem-solving percentage and example-specific humidity targets are not universal rules or separate instructor exam designations.
- October 19's "RCN", "CHEC", "Tizen" and "Genshi Genbutsu" are normalized using workbook RCA, Check, Kaizen and Genchi Genbutsu wording. Raw analysis flags remain intact.
- An observed oversized hole is not automatically a final root cause; investigate the defined problem and possible deeper causes.
- Bold/highlighted October 19 items cannot be identified from the transcript, so no specific exam designation is inferred.

See the Source Index before relying on disputed wording.