

COURSE DESIGN BLUEPRINT

Audit-Ready Training Systems Design for Federal R&D and Mission Programs

Evidence-Anchored ISD for Regulated Technical and
Defense-Adjacent Environments

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SCOPE & STRUCTURE: 5 MODULES | 25 LESSONS | 17 LEARNER + 10 PRODUCTION ARTIFACTS
38 REGULATORY CROSSWALK ANCHORS

DELIVERY FORMAT: FORMAT: BLENDED (ASYNC LMS + vILT)
(SEE SECTION 2.1 FORMAT FIELD FOR FULL DELIVERY SPECIFICATION)
DURATION: (A) STANDARD TRACK OR (B) INTENSIVE TRACK
CALENDAR DURATION: (A) 8 WEEKS | (B) 5 WEEKS
INSTRUCTIONAL TIME: (A) 5–7 HRS/WK | (B) 8–12 HRS/WK
INDEPENDENT ARTIFACT WORK: (A) ~4–5 HRS/WK | (B) ~8–10 HRS/WK
TOTAL COMMITMENT: (A) ~9–12 HRS/WK | (B) ~16–22 HRS/WK
OPTIONAL WEEK 0: BRIDGE/ONBOARDING
LMS PLATFORM: FEDRAMP-AUTHORIZED (ATO REQUIRED) | [CMI5/SCORM] + LRS [xAPI]

AUDIENCE: ID/ISD/LXD PROFESSIONALS AND TRAINING DEVELOPERS ENTERING ROLES IN REGULATED
ENVIRONMENTS AND GOVERNMENT-CONTRACTED CONTEXTS
DOMAINS: DEFENSE, R&D, BIOTECH, PHARMA, AEROSPACE, BIOSECURITY
PREREQS: FOUNDATIONAL ISD (OPM 1750-EQUIVALENT);
MINIMUM BACHELOR’S DEGREE IN INSTRUCTIONAL DESIGN, LEARNING DESIGN
& TECHNOLOGY, OR EDUCATION STRONGLY RECOMMENDED
INSTRUCTOR MODEL: LEAD ISD + SUPPORT FACILITATOR + SME PANELIST
BRIDGE PATH AVAILABLE FOR PREREQUISITE VARIANCE



SECTION 0: FRONT MATTER

0.1. DISCLAIMER

This document models training design and training system practices commonly required in regulated and government-contracted environments, including considerations related to traceability, accessibility, governance, risk mitigation, and audit defensibility. Regulatory references are included to provide instructional context for the types of frameworks under which such training systems may be designed, implemented, and maintained.

This document is provided for instructional purposes only. It does not constitute legal advice, regulatory guidance, or an authoritative interpretation of any statute, regulation, contract clause, or technical standard. Regulatory citations are included for instructional grounding and must be verified against current authoritative sources before any operational use or implementation of the training system concepts described in this blueprint.

0.2. DOCUMENT STATUS AND IMPLEMENTATION NOTICE

This course blueprint was developed as part of graduate-level instructional systems design work and is presented as a portfolio artifact demonstrating the application of instructional systems design methods to regulated and technically complex environments, including government contracting and research-and-development contexts. The document illustrates a structured approach to designing training systems that align learning artifacts, verification evidence, and regulatory considerations, demonstrating design methodology and systems-thinking practices used to organize complex procedural and technical knowledge into coherent training architectures.

The blueprint represents a design prototype draft (Version 0.6) rather than an operational training program. Although the document incorporates preliminary alignment to selected regulatory and standards frameworks, it has not undergone formal validation, legal review, security accreditation, accessibility certification, or audit testing.

Implementation of any training system derived from this blueprint would require review by appropriate legal, compliance, security, technical, and contracting authorities. In addition, any platform, tool, or hosting environment referenced in the blueprint must be verified against current FedRAMP authorization status, applicable Authority to Operate (ATO) determinations, and relevant organizational security requirements prior to deployment.

Future users of this blueprint are responsible for validating all regulatory interpretations, technical assumptions, and system configurations before applying any portion of the design in an operational environment.

Please see subsection [13.5. \(Explicit assumptions requiring pre-delivery verification\)](#) for more details.



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SECTION 1: EXECUTIVE SUMMARY AND COURSE RATIONALE

1.1. COURSE PURPOSE AND POSITIONING

This blueprint defines the instructional design architecture for Audit-Ready Training Systems Design for Federal R&D and Mission Programs — an 8-week (or 5-week accelerated) blended professional development course targeting instructional designers, learning experience designers, and instructional systems designers who are entering or advancing within U.S. federal government contracting, defense, and regulated-industry roles. The course is designed to function simultaneously as a high-fidelity instructional product and as a portfolio artifact that demonstrates the designer's command of evidence-based training systems design within real operational constraints.

The course addresses a validated and persistent competency gap: the majority of ID/ISD/LXD/L&D graduates and practitioners entering the government-contracting domain possess strong content development skills but lack direct preparation for the evidence systems, regulatory traceability, records governance, and quality assurance operations that are explicit expectations in federal acquisition, defense contracting, and regulated R&D environments. Federal labor category definitions (e.g., SAIC GSA IT Schedule catalog) enumerate ISD responsibilities to include needs and gap analysis, drafting lesson plans and programs of instruction, and QA/peer review of design plans — competencies that are systematically underprepared in standard LXD curricula.

1.2. DESIGN PROCESS FRAMEWORK: ADDIE WITH SAM-ALIGNED ITERATION

This blueprint was developed using ADDIE (Analysis–Design–Development–Implementation–Evaluation) as its governing framework, consistent with TRADOC TR 350-70 requirements for systematic training product development. The five phases map to blueprint sections as follows: Analysis → Sections 1–2 and Addendum A (front-end analysis, learner profile, regulatory context); Design → Sections 3–9 (objectives, sequencing, assessment architecture, evaluation framework); Development → Sections 10–11 and Addendum D (artifact template library, technology specifications); Implementation → Addendum E (pre-delivery verification protocol and delivery parameters); note: Section 12 (References) is a documentation artifact supporting all phases, and Section 13 (Designer Notes) captures design-phase rationale; Evaluation → Section 8 (formative: RC rubrics, peer review) and Section 8.5 (summative: Kirkpatrick Levels 1–4). ADDIE is the appropriate organizing framework for government-mandated training documentation because it satisfies audit expectations for systematic, documented, phase-gated design evidence (CW-17).

The blueprint development process simultaneously exhibits characteristics of the Successive Approximation Model (SAM; Allen, 2012), and this alignment is not incidental — it is the honest account of how this document was produced. SAM positions design as iterative rapid-prototyping cycles (Preparation → Iterative Design → Iterative Development), rather than sequential phase completion. This blueprint has been refined through successive approximation: v0.1 → v0.2 → v0.3 → v0.4 → v0.5 → v0.6 (current), each version incorporating SME feedback, gap analysis, and structural corrections — precisely the iterative design loop SAM describes. The artifact-centered, gate-based course structure itself teaches a SAM-compatible process to learners: each artifact is a prototype, each gate is a rapid review cycle, and the A-12 change log is the iterative design record. ADDIE provides the audit-defensible phase documentation that federal acquisition requires; SAM describes the development reality that produced it. Both frameworks are present and compatible: ADDIE for documentation compliance, SAM for operational design efficiency.

1.3. DOMAIN EVIDENCE BASE: WHY THIS COURSE IS NEEDED

The following validated findings from authoritative sources establish the instructional rationale for this course. All citations support design decisions reflected in the module and subunit structure.



Nomenclature notes:

Module: A major instructional unit in this course. The term is used as the ISD-neutral equivalent of what federal training systems may variously label 'units,' 'training units,' 'blocks,' or 'instructional segments.' This course contains five modules. Module-level objectives map directly to terminal learning objectives (TLOs) per TRADOC convention.

Lesson: A discrete instructional event within a module, each spanning approximately one to two hours of learner engagement. Equivalent to a Program of Instruction (POI) lesson in federal training systems — the unit referenced in OPM 1750-series labor category definitions. Each lesson produces one or more controlled artifacts (A-series learner deliverables or P-series production deliverables).

FINDING	EVIDENCE SOURCE	DESIGN IMPLICATION
Federal contracting explicitly treats certain training as a required element of compliance and internal control, not merely L&D content.	FAR 52.203-13 (Ethics and Compliance Program): requires effective training appropriate to roles/responsibilities, monitoring, auditing, risk assessment, and corrective measures.	Module 1 frames all course work around training-as-internal-control (CW-01, CW-02).
Record availability and retention are explicit contractual obligations. Electronic records must maintain audit trail integrity.	FAR Subpart 4.7 (4.703–4.705): contractors must make records available for audit; electronic records require audit trails for data transfers.	Modules 4–5 teach versioning, LMS evidence export, and records retention planning (CW-03 through CW-05).
GAGAS (Yellow Book, 2024 revision; effective December 15, 2025 for financial audits and December 15, 2026 for performance audits) now requires a system of quality management with explicit documentation, monitoring, and remediation.	GAO-24-106786: system of quality management must be designed, implemented, and monitored; remedial actions documented.	Course models QA system logic throughout; Module 4–5 capstone mirrors quality management design requirements (CW-13).
CMMC Phase 1 implementation (November 2025–2026) intensifies requirements for documented, repeatable compliance evidence workflows across the defense industrial base.	DoD CIO CMMC Resources and Documentation (2025); CMMC Model Overview v2.0 (2021).	Module 2 and 5 capstone include CMMC-informed traceability and evidence packaging scenarios (CW-22, CW-23, CW-24).
Inspection-ready regulated environments (GMP, pharma, aerospace) require pre-inspection training records, documentation review, and staff readiness activities.	Al Azawei et al. (2025): GMP inspection management scoping review identifies staff training, documentation review, and risk assessment as pre-inspection readiness activities.	Course treats training systems as part of operational quality systems, not isolated L&D content (all modules).
Transfer and sustained performance are recurring failure points in workplace e-learning; measurement and transfer frameworks are systematically undertreated.	Systematic review of workplace e-learning transfer (Botha & Van der Merwe, 2025; Lange, 2021): completion-only metrics are insufficient; evidence of transfer must be designed in.	Every module requires evidence-producing assessments — not attendance or completion records — as a non-negotiable design constraint (CW-18).
BLS projects sustained demand for training and development specialists, with explicit note that regulatory and compliance-related training design is a growing driver.	BLS Occupational Outlook Handbook: Training and Development Specialists (2024): market demand includes compliance and regulatory training development.	Justifies course market relevance and positions graduates for a defined and growing sector (Course Overview, M1.1).



SECTION 2: COURSE OVERVIEW

2.1. COURSE DESIGN SUMMARY

FIELD	DETAIL
COURSE TITLE	Audit-Ready Training Systems Design for Federal R&D and Mission Programs
SUBTITLE	Evidence-Anchored ISD for Regulated Technical and Defense-Adjacent Environments
VERSION	0.6 – Portfolio Prototype – Pre-Release Draft
TARGET AUDIENCE	IDs, ISDs, training developers, and learning operations professionals transitioning into or advancing within U.S. federal government contracting, defense contracting, regulated R&D, biotech, pharmaceutical, aerospace, and biosecurity sectors.
PREREQ-UISITES	Foundational ISD knowledge equivalent to OPM Instructional Systems Series 1750 coursework: learning theory, instructional design practices, and educational evaluation. Bridge path (Week 0) available for variance reduction (CW-15).
STANDARD TRACK	8 weeks (~5–7 hrs/wk instructional time 4–5 hrs/wk independent artifact time). For working professionals. Same content as intensive track; redistributes Module 5 synthesis across an extra week with additional review cycle.
INTENSIVE TRACK	5 weeks (~8–12 hrs/wk instructional time 8–10 hrs/wk independent artifact work). For dedicated onboarding cohorts with protected learning time.
WEEK 0 (OPTIONAL)	Bridge/Onboarding: prerequisite pre-assessment, tool access provisioning, template orientation. OPM 1750 variance calibration (CW-15). Estimated learner time: 2–4 hrs (diagnostic + orientation activities; tracked separately from weekly commitment totals).
INSTRUCTOR MODEL	Lead Instructor (ISD/compliance specialist, senior) + Support Facilitator (LMS/tech/accessibility logistics) + optional Compliance/QMS SME guest panelist (Weeks 4–5 audit simulation). Role specifications in P-04 Instructor Qualification Standard.
FORMAT	Blended: LMS-deployed async microlearning (10–15 min segments + readings + artifact work) + one 90-min vILT (virtual instructor-led training) workshop per module. All sessions recorded with live captions; recordings archived per A-12 using NARA-consistent naming conventions (YYYYMMDD_ArtifactID_vX.X_Initials per Section 13.6).
TECHNOLOGY STACK	LMS: FedRAMP-authorized (Canvas GovCloud, Moodle GovCloud, Blackboard/Anthology Government). Conferencing: FedRAMP-authorized (Zoom for Government, Google Meet Enterprise, Microsoft Teams GovCloud). xAPI + LRS for evidence logging (SCORM Cloud GovCloud or Veracity LRS). Content packaging: cmi5 preferred; SCORM 1.2 acceptable fallback. SCORM 2004 not recommended. File storage: SharePoint GovCloud or equivalent with NARA-compliant folder naming.
MOBILE ACCESS	Async content: mobile-accessible (responsive LMS required). vILT screen-share activities: desktop required. A-11 must include mobile access acceptance test per Trusted Tester mobile guidance (CW-27).
<p>508 VS WCAG NOTE:</p> <p>For electronic training content, Revised Section 508 primarily incorporates WCAG 2.0 Level A and AA success criteria and conformance requirements, while other ICT provisions in the rule apply to hardware, telecommunications equipment, and software systems not addressed in this blueprint.</p>	
MODULES / LESSONS / ARTIFACTS	5 modules × 5 lessons = 25 lessons. 17 controlled learner artifacts (A-01–A-17) + 10 course production artifacts (P-01–P-10). 38 compliance crosswalk anchors (CW-01–CW-38).



FIELD	DETAIL
INSTRUCTIONAL SCAFFOLD	MPI at three nested levels: course arc, module arc, lesson cycle. Compatible with SAT/ADDIE (TRADOC TR 350-70, CW-17). Andragogical principles (Knowles) embedded in all Activation lessons. Backward design (UbD) grounds all artifact targeting.
ISD FRAMEWORK	Backward Design (Wiggins & McTighe Understanding by Design); Evidence-First LXD; Quality Management Mindset (GAO Yellow Book analogue); Rapid Prototyping with Acceptance Gates.
COMPLIANCE DISCLAIMER	This course provides instructional context for regulatory frameworks — it does not provide legal, contractual, or compliance advice. Regulatory citations are provided for instructional grounding and must be verified against current authoritative sources before operational application.

2.2. EXPECTED LEARNER TIME COMMITMENT

(DUR.=Duration):

TRACK	DUR.	WEEKLY COMMITMENT	ARTIFACT CADENCE	PREREQUISITE EXPECTATION
Standard	8 weeks	9–12 hours/week	~2 artifacts/week average	Week 0 bridge recommended; prerequisite check required
Accelerated	5 weeks	16–22 hours/week	3–4 artifacts/week average	Strong existing compliance-domain familiarity required; Week 0 mandatory

Time commitment estimates derived as: Standard track — 5–7 hrs instruction + 4–5 hrs artifact production = 9–12 hrs/week; Accelerated track — 8–12 hrs instruction + 8–10 hrs artifact production = 16–22 hrs/week. Estimates assume baseline regulatory reading proficiency and no remedial content required.

These estimates assume learners arrive with functional proficiency in document production tools, baseline familiarity with federal contracting terminology, and confirmed access to a FedRAMP-authorized LMS environment. Time estimates include lesson engagement, artifact production, peer review participation, and revision cycles. Learners whose background does not include prior exposure to FAR-based contracting environments should plan for the upper range of each commitment band. The accelerated track is appropriate only for practitioners with existing regulatory reading proficiency and confirmed availability; it is not a scheduling convenience option. See Addendum A for the full front-end analysis and learner context profile that grounds these estimates in a validated representative population proxy.

2.3. COURSE TERMINAL OBJECTIVES (CTOs/TLOs)

Upon completion, participants independently produce a complete, audit-defensible training system artifact package for a specified regulated workflow — with documented traceability from compliance requirement through learning objectives (LOs) through assessment evidence through records governance — satisfying documentation integrity, accessibility validation, and quality management expectations of U.S. federal government contracting oversight.

(Scope note: Learners author the governance architecture, design specifications, and evidence framework for each component of this package. Specialist execution functions — e.g., formal accessibility conformance testing by a certified Trusted Tester, cybersecurity implementation under an ATO, independent LRS administration — are represented in learner design specifications and understood as roles within the larger system. The terminal objective tests design authorship and governance judgment for those functions, not independent multi-specialist execution.)

2.4. ENABLING OBJECTIVES (EOs) MAPPED TO MODULES



(MOD=Module):

EO #	ENABLING OBJECTIVE	MOD.
EO.M1	Construct an evidence brief that frames a regulated training workflow in terms of required performance evidence, failure modes, compliance drivers, and scope assumptions.	Module 1 (M1)
EO.M2	Produce a complete traceability matrix linking regulatory requirements through learning objectives, learning activities, assessments, evidence artifacts, and verification methods — with ≥15 rows and documented edge cases.	Module 2 (M2)
EO.M3	Design a performance support job aid and a defensible assessment plan with rubric criteria, remediation pathways, and evidence storage specifications for a regulated workflow.	Module 3 (M3)
EO.M4	Develop a QA/UAT plan with acceptance criteria, an accessibility validation plan specifying the correct 508/WCAG baseline, and an LMS deployment plan with audit-trail strategy.	Module 4 (M4)
EO.M5	Produce a governance and RACI plan, records retention and evidence availability plan, continuous improvement and CAPA plan, and a fully indexed audit response packet that can be retrieved and presented within a timed defense.	Module 5 (M5)

2.5. STUDENT COMPETENCY MODEL (ECD ALIGNMENT — STUDENT MODEL)

This course implements Evidence-Centered Design (Mislevy, Steinberg & Almond, 2003) at the assessment architecture level. The student model below defines the four core competency families that all A-series assessment artifacts are designed to elicit observable evidence of. Rubric criteria RC-01 through RC-11 function as the observable indicators for each competency. Artifacts are not evaluated as documentation outputs alone — they are treated as performance evidence tasks, each positioned to surface learner reasoning within a specified competency domain. Full three-component ECD implementation: the Student Model is defined in the competency table below; the Evidence Model is constituted by RC-01 through RC-11 (the observable rubric indicators specifying what counts as evidence of each competency); the Task Model is constituted by A-01 through A-17 (the assessment task specifications that generate performance evidence for each competency domain and constrain the evidence-eliciting situation).

(ART.=Primary artifacts; RC=Rubric indicators):

COMPETENCY	OPERATIONAL DEFINITION	ART.	RC.
REGULATORY INTERPRETATION (RI)	Translate a compliance clause into a performance requirement and a corresponding training control; accurately scope applicability without overclaiming or underclaiming	A-01, A-02, A-03	RC-01, RC-06
EVIDENCE ARCHITECTURE (EA)	Design a defensible requirement → objective → learning activity → assessment → evidence artifact → retention/indexing chain; handle ambiguous edge cases without fabricating requirements	A-04, A-05, A-06, A-07	RC-02, RC-03, RC-08
COMPLIANCE TRAINING GOVERNANCE (CTG)	Define a quality assurance system, CAPA workflow, version control discipline, lifecycle review triggers, and RACI accountability structure appropriate to a regulated training environment	A-10, A-12, A-14, A-15, A-16	RC-05, RC-07, RC-09, RC-11
AUDIT-READY SYSTEM INTEGRATION (ASI)	Produce a complete, correctly indexed, retrievable artifact package that can withstand a timed audit evidence request; demonstrate that all components are internally consistent and cross-referenced	A-17 (capstone integration)	RC-01 through RC-11 (all dimensions)



2.6. TECHNOLOGY ARCHITECTURE AND STACK DECISIONS

All platform selections must be FedRAMP-authorized or operating under an applicable ATO before use with government-contracted content. Verify current FedRAMP marketplace status at marketplace.fedramp.gov before deployment.

ITEM	RECOMMENDED	MINIMUM REQUIREMENTS	DECISION RATIONALE
LMS	Canvas GovCloud · Moodle GovCloud · Blackboard/Anthology Government · Cornerstone GovCloud	FedRAMP-authorized · Timestamped assignment submission + version history · Rubric-based gradebook · SCORM/cmi5 import · Reporting export	Audit trail requires timestamped submissions. Version history enables evidence retrieval. FedRAMP authorization non-negotiable for content involving federal contractors.
CONTENT PACKAGING STANDARD	cmi5 (preferred) · SCORM 1.2 (fallback) · SCORM 2004 (not recommended)	LMS native support · xAPI generation (cmi5) or completion event (SCORM)	cmi5: xAPI-native, controlled launch, AU completion verbs align with compliance evidence needs. SCORM 1.2: widely supported fallback. SCORM 2004: sequencing/navigation features rarely utilized in government LMS environments; verify LMS compatibility before specifying.
LRS (LEARNING RECORD STORE)	SCORM Cloud GovCloud · Veracity Learning · Learning Locker (self-hosted)	FedRAMP-authorized or within ATO · xAPI 1.0.3+ · Statement retrieval API · Retention configurable to FAR 4.703 minimums and contract-specific retention schedules.	xAPI statements (completed, passed, failed, experienced) provide behavior-level evidence beyond LMS completion flags. Retention period must match FAR 4.703 minimum.
CONF-RENCING (VILT)	Zoom for Government · Google Meet Enterprise · Microsoft Teams GovCloud	FedRAMP-authorized · Breakout rooms · Screen share + annotation · Recording + auto-captions · Recording export for A-12	Live captions required (508/CW-26). Recording archival per A-12. Annotation essential for MM-D demonstrations.
STORAGE / VERSION CONTROL	SharePoint GovCloud · Google Drive for Government · Box for Government	FedRAMP-authorized · Version history · Role-based access · NARA naming enforceable	NARA naming conventions (YYYYMMDD_ArtifactID_vX.X_Initials) must be enforceable in chosen storage system.
MOBILE ACCESS	Responsive LMS (all options above are responsive) · Native app (Canvas Student, Bb Student)	Async content: mobile-accessible (responsive LMS required). vILT participation: full desktop experience required for screen-share activities; mobile view permitted for observation. Accessibility testing must include Trusted Tester mobile criteria where applicable.	Mobile accessibility is an operational necessity for distributed cohorts. Desktop-only vILT is acceptable constraint — must be documented in P-01 Course Admin Data.
PRIVACY CONTROLS	Determined by agency/contractor ATO and applicable Privacy Act SORNs	PII inventory in A-09 · Data minimization · Destruction schedule · Access logs per role	PII in LMS records (learner IDs, scores, timestamps) requires Privacy Act applicability determination. A-09 must include this regardless of CUI scope.

2.7. POI ALIGNMENT STATEMENT (STRUCTURAL)



This course blueprint is structured to align conceptually with Program of Instruction (POI) conventions used in TRADOC and related federal training systems. The document functions as a portfolio prototype rather than a formally issued training product; therefore it mirrors the organizational logic of POI documentation (course terminal objective, enabling objectives, module architecture, artifact outputs, and evaluation criteria) without claiming formal adoption of TRADOC governance processes.

2.8. NOTIONAL POI STRUCTURE — ILLUSTRATIVE ALIGNMENT TO TRADOC TR 350-70

The following table illustrates how the core fields of a Program of Instruction (POI), as specified in TRADOC Regulation 350-70, map to corresponding elements of this course blueprint. This is a notional alignment for illustrative purposes; the blueprint does not constitute a formally issued POI under Army training governance processes. The table supports designers who may adapt this blueprint for formal government training use (CW-15) and closes the traceability gap between the POI alignment claim in Section 2.6 and the supporting design evidence in the blueprint.

(TRADOC=TR 350-70 REF; REF.=Section references):

POI FIELD	TRADOC	BLUEPRINT ENTRY (ILLUSTRATIVE)	REF.
Course Number	Ch. 4-1a; App. B	REGLXD-GRAD-001 · Version: v0.5 · Instance ID: YYYYMMDD-[Cohort#] · Proponent: [Institution/Program Office]	P-01; S.1
Course Title	Ch. 4-1b	Audit-Ready Training Systems Design for Federal R&D and Mission Programs	S.1
Training Audience	Ch. 4-1c; App. B §C	Graduate-level instructional designers and senior training managers; employed or preparing to support federal R&D, defense, or mission-program environments. Learner profile: Addendum A. Enrollment verified in Week 0 diagnostic.	S.2.2; Add.A
Course Length (Total Hours)	Ch. 4-1d; App. B §D	Standard track (8-wk): ≈9–12 hrs/wk × 8 wks = 72–96 hrs total. Accelerated track (5-wk): 16–22 hrs/wk × 5 wks = 80–110 hrs total. Instruction portion: Std 40–56 hrs; Accel 40–60 hrs.	S.2.1
Terminal Learning Objectives (TLOs)	Ch. 4-2; App. B §F	LO.M1–LO.M5: Learner designs, documents, and defends a complete audit-defensible training system for a federal compliance context, producing all 17 controlled artifacts (A-01–A-17) meeting regulatory traceability, accessibility, security, and records-retention requirements.	S.3–7; S.8.3
Enabling Objectives (ELOs)	Ch. 4-3	25 lesson-level ELOs mapped to 5 module TLOs; each ELO is artifact-anchored (tied to specific artifact gate or gate-level assessment). See Section 7 lesson sequence table for ELO-to-artifact mapping.	S.7; S.8.2
Training Environment	Ch. 4-1e; App. B §G	Primary: vILT (synchronous virtual) weekly; asynchronous self-paced microlearning in FedRAMP-authorized LMS. No in-person requirement. Tech requirements: reliable internet, Zoom or equivalent, LMS access (Sections 2.5, 11).	S.11; S.2.5
Assessment Strategy	Ch. 4-5; App. B §H	Artifact-based: all graded evidence produced as controlled artifacts reviewed against RC-01–RC-11 rubric. Gate-based progression (5 gates; DP-01–DP-07). Formative: peer review rubric (PR-01–PR-05). Summative: A-17 integrated capstone (DP-06). No timed exams.	S.8; Add.D D.17
Prerequisites	Ch. 4-1f; App. B §E	Graduate-level ISD competency (Bloom-aligned objectives; ADDIE familiarity; authoring tool proficiency). Regulatory reading literacy preferred. Verified in Week 0 prerequisite diagnostic; bridge path available (CW-15).	S.2.3; S.2.4
Technology Requirements	Ch. 5-2; App. D	Authoring tool: Articulate 360 or equivalent (learner-supplied). LMS: FedRAMP-authorized (A-11 specifies vendors). xAPI/cmi5 conformance required. Video: caption-capable player. Platform: Zoom or equivalent. All ICT: Revised Section 508 / WCAG 2.0 AA.	S.2.5; S.11; A-08



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SECTION 3: GLOBAL DESIGN CODE LIBRARY

All codes below are defined once and referenced by code in all subunit tables. This mirrors controlled-vocabulary discipline in formal training product governance (TRADOC TP 350-70-14, CW-16) and eliminates redundant restatement across 25 lessons.

3.1. RUBRIC MICRO-CRITERIA LIBRARY (RC-01 TO RC-11); SCORED 0–4 PER CRITERION

CODE	CRITERION (EXEMPLARY = 4)
RC-01	Clause/standard fidelity: all compliance claims cite applicable, current, correctly scoped source; no overclaiming; dated assumptions flagged.
RC-02	Traceability integrity: complete requirement → objective → learning activity → assessment → evidence artifact → retention/indexing chain; edge cases documented.
RC-03	Evidence verifiability: assessment evidence is behavior-based and falsifiable; completion/attendance alone never accepted; remediation generates proof of correction.
RC-04	Accessibility baseline correctness: Revised 508/WCAG 2.0 A/AA stated as the legal compliance threshold; implementing WCAG 2.1/2.2 as forward-compatible improvements is acceptable and common federal practice — the critical distinction is between the legal threshold (WCAG 2.0 AA per the 2017 Revised Standards) and an agency’s operational implementation standard, which may legitimately exceed that floor. Hard fail = claiming WCAG 2.2 IS the required 508 legal baseline rather than correctly identifying it as an agency operational choice above the legal minimum. TT-aligned validation method specified; tester qualification field completed in A-08.
RC-05	QA/UAT verification objects: test cases specific; acceptance criteria observable; defect workflow includes open/retest/close with evidence at each stage; DoD OIG QA realism applied.
RC-06	Security/data scope accuracy: CUI/PII boundary statement explicitly scoped (not universally claimed); storage and access controls defined; sanitization present; Privacy Act applicability determined.
RC-07	Versioning and change log integrity: A-12 present with author, date, and rationale for every version; NARA naming convention applied; prior versions archived; RACI signoff recorded where required.
RC-08	Records retention, indexing, retrievability: retention basis cites applicable clause; NARA Curriculum 2.0 naming and metadata applied; index enables 10-min audit packet retrieval; xAPI/LRS retention aligned to FAR 4.703.
RC-09	Governance, monitoring, CAPA realism: RACI roles specific; review cadence trigger-based (not calendar-only); CAPA entries include verification-of-correction evidence.
RC-10	Reviewer-legible writing: self-contained narrative; decisions explained without tribal knowledge; assumptions dated and attributed; plain language standard (Digital.gov) applied.
RC-11	Artifact metadata completeness: every controlled document (A-xx and P-xx) includes author, date, version, review/approval stamps, and document control designation. Blank metadata = hard fail.

3.2. OPERATIONAL CODES QUICK REFERENCE (A11Y | SEC | MM | VC)



CODE	SPECIFICATION
A11Y-C	Course content: captions/transcripts for all instructional media; accessible document structure (heading styles, alt text prompts, logical reading order); Revised 508 baseline for all course materials.
A11Y-P	Product validation (A-08): specify Revised 508/WCAG 2.0 baseline; TT-aligned method; tester qualification field; evidence outputs (test log, defect log, retest, conformance statement); defect disposition workflow.
SEC-S	Sanitization: no real client data, CUI, or PII in any submitted artifact. Scenarios use sanitized, sponsor-defined content only. Data sanitization log in A-09.
SEC-B	Boundary statement: A-09 must include explicit CUI scope statement per NIST SP 800-171 Rev. 3 applicability (applies only to components that process/store/transmit CUI). Overclaiming = hard fail. Privacy Act applicability determination required.
MM-W	Worked example video: captioned, with transcript; demonstrates expert reasoning on artifact construction task using think-aloud narration. Max 10 min per segment.
MM-D	Demonstration (vILT): instructor screen-share with live annotation; recording with annotated replay for async alternatives; archived per A-12.
MM-S	Scenario pack: branching case set with decision prompts; used for application, integration, and synthesis activities requiring judgment under constraint.
VC-L	Update A-12 Version Log: artifact ID, version, author, date, change summary, rationale. NARA naming: YYYYMMDD_ArtifactID_vX.X_AuthorInitials.
VC-A	Archive prior version snapshot in controlled repository before overwriting working version. FedRAMP-authorized storage required.
VC-R	Record review/approval checkpoint: RACI signoff in A-16 with reviewer role, date, and outcome (approved/revision required). Required for acceptance gate releases.



SECTION 4: REGULATIONS AND STANDARDS INTEGRATION

4.1. REGULATORY AND STANDARDS CROSSWALK (CW-01 to CW-38)

The compliance crosswalk is the authoritative reference structure for this blueprint. Every regulatory claim is anchored here. Items CW-01 through CW-19 correspond to core federal contracting, audit, and compliance authorities (FAR, OMB, GAO, Uniform Guidance, DCAA, DFARS, and foundational NIST standards). Items CW-20 through CW-36 cover defense-specific compliance ecosystems, accessibility standards, configuration management, quality management, learning science research, and audit telemetry infrastructure. Items CW-37 and CW-38 provide clause-level reinforcement anchors drawn from FAR 52.203-13 and Uniform Guidance §200.501 that strengthen the internal-control and record-availability control families already represented earlier in the crosswalk.

The crosswalk intentionally represents a balanced regulatory coverage set spanning federal acquisition governance, audit readiness, cybersecurity and information governance, training system governance, accessibility compliance, configuration management, and learning telemetry infrastructure. These authorities collectively represent the operational compliance environment within which federal and defense training systems are designed, audited, and maintained. The list is intentionally scoped to the authorities most directly relevant to training-system design, evidence generation, and audit readiness, rather than attempting to enumerate all potentially applicable regulatory sources. Where an entry represents a governance framework that informs training system design by conceptual analogy rather than directly imposing training requirements, the Operational Requirement cell is prefixed with [Governance Analogue] to make the relationship explicit. CROSSWALK READING GUIDE – AUTHORITY TIER DEFINITIONS: (1) DIRECT REQUIREMENT: The authority directly imposes training, documentation, or evidence obligations that this course models – e.g., FAR 52.203-13, Uniform Guidance §200.203, NIST SP 800-171, Revised Section 508. Learners are responsible for correctly interpreting and applying these. (2) GOVERNANCE ANALOGUE [prefix in Operational Requirement cell]: The authority governs a system, process, or lifecycle domain adjacent to training systems – the structural logic (documentation discipline, lifecycle management, configuration control, risk governance) informs the course’s design rationale by conceptual parallel but does not directly mandate training architecture – e.g., OMB A-130, ISO 10006, NIST RMF, DCAA SF 1408. (3) RESEARCH/STANDARDS ANCHOR: Establishes technical or professional practice standards that the course applies – e.g., xAPI/cmi5, SCORM, IEEE learning technology standards. Reviewers should evaluate each entry within its declared tier.

SCOPE ACCURACY REMINDERS:

NIST SP 800-171 applies only to components processing, storing, or transmitting CUI; learners must not claim universal scope. As of 2025-September-01, Revised 508 incorporates WCAG 2.0 Level AA (NOT 2.2) as legal baseline (2.2 and 3.0 drafts are not required). CMMC Phase 1 and GAGAS 2024 effective dates must be verified against current sources before each delivery. All URLs must be reverified at delivery time.

(ID=Crosswalk ID; S/C=Standard/clause; ART.=Artifact(s); MOD.=Module(s); RC=Rubric criteria; VER.=Version):

ID	S/C	OPERATIONAL REQUIREMENT	CONTROL	ART.	MOD.	RC	VER.
CW-01	FAR 52.203-13	Ethics/compliance program with effective role-appropriate training; internal control system with monitoring, auditing, evaluation, and corrective measures.	Training-as-control; role mapping; monitoring + CAPA logic	A-01, A-03, A-14, A-15, A-16	M1–M5	RC-01, RC-09	v1



ID	S/C	OPERATIONAL REQUIREMENT	CONTROL	ART.	MOD.	RC	VER.
CW-02	FAR Subpart 4.7 (§4.703–4.705)	Contractors retain records for review; specific retention periods; electronic integrity — no overwrite within retention period.	Evidence availability; retention periods; audit trail; indexing	A-12, A-13, A-17, A-11	M2.5, M4.5, M5	RC-07, RC-08	v1
CW-03	OMB Circular A-123 (M-16-17)	Risk-based internal control and ERM; evaluation and assurance; deficiency tracking and corrective action; annual assessment.	Risk register; monitoring; assurance-style review loop	A-03, A-14, A-15, A-16	M1.5, M5	RC-09	v1
CW-04	OMB Circular A-130	[Governance Analogue — records management policy as lifecycle risk-based program informs training system lifecycle design by structural parallel; does not directly mandate training architecture.]	Security/data handling scoping; records lifecycle controls	A-09, A-13	M4, M5.3	RC-06	v1
CW-05	GAO Yellow Book 2024 (GAO-24-106786)	QMS required by Dec 15, 2025; QMS evaluation by Dec 15, 2026; monitoring and remediation emphasis; inter-rater calibration.	Peer-review calibration; QA system; remedial action tracking	A-10, A-14, A-15	M1.4, M4.4, M5.4	RC-03, RC-09	v1
CW-06	2 CFR 200.508/514/521 (Uniform Guidance)	Corrective action; auditor access to records; GAGAS audits; management decision within 6 months — rationale and timetable.	Timed audit packet; management decision response pattern	A-15, A-17	M5.2–M5.5	RC-08, RC-09	v1
CW-07	DCAA Pre-Award Survey Checklist	[Governance Analogue — Documentation Discipline] Pre-award survey checklist discipline: all fields require complete narrative responses; no blanks permitted. Structurally analogous to artifact metadata completeness requirements — the SF 1408 evaluates accounting system adequacy (cost segregation, timekeeping, labor distribution), not training systems. The “no blanks” completeness discipline and documentation sufficiency standard inform artifact metadata and hard-fail criteria by structural parallel.	Artifact writing standard: all fields complete, no blanks	(All)	(All)	RC-10, RC-11	v1
CW-08	DFARS §252.242-7006 (Accounting System Admin)	Acceptable contractor system: documented procedures, formal approval, compliant records management.	Acceptable-system framing applied to training system design	A-14, A-16	M5.1–M5.5	RC-07, RC-09	v1
CW-09	DoD CIO CMMC Phase 1 (Nov 2025–Nov 2026)	Phase 1: Level ½ self-assessments and SPRS affirmations; documented, repeatable compliance evidence required.	Dated assumptions; evidence packaging under evolving compliance	A-01, A-12, A-17	M2.5, M5.2	RC-01, RC-07	v1



ID	S/C	OPERATIONAL REQUIREMENT	CONTROL	ART.	MOD.	RC	VER.
CW-10	NIST SP 800-53A Rev. 5	Assessments verify objectives via examination/interview/test – not paperwork or completion records alone.	Verification objects in QA/UAT and accessibility validation	A-10, A-08	M4.2–M4.5	RC-03, RC-05	v1
CW-11	NIST SP 800-61r3 (CSF 2.0)	Incident response integrated into risk management; common language for IR lifecycle.	Incident reporting workflow – capstone track option	(All via IR track)	M2–M5	RC-02	v1
CW-12	NIST SP 800-92/92r1	Log management policy and guidance; audit trail design; log integrity; retention.	Evidence logs; LMS reporting/export; audit trail design	A-11, A-12, A-13	M4.5, M5.3	RC-07, RC-08	v1
CW-13	NIST SP 800-171 Rev. 3	CUI protection in nonfederal systems; scope-bound to components processing/storing/transmitting CUI. Overclaiming prohibited.	Security scoping; boundary statements; scope accuracy gate	A-09	M4.1, M4.5	RC-06	v1
CW-14	DoD FIAR Report (Jul 2025)	Documents ongoing DoD audit remediation; audit readiness is continuous operational posture, not a pre-audit sprint.	Contextualizes audit-readiness as enterprise continuous posture	A-14, A-17	M1.1, M5.1–M5.5	RC-09	v1
CW-15	OPM Instructional Systems Series 1750	ISD is a professional discipline requiring learning theory, instructional design practices, and educational evaluation.	Prerequisite definition; bridge path design; Week 0	(Prereq + bridge)	Pre-course, M1.1	RC-01	v1
CW-16	TRADOC TP 350-70-14 (Apr 2021)	Detailed guidance for courses, lessons, job aids, training support packages; product management and review triggers.	Govt-native training product terminology; artifact naming	(Artifact naming + P-series)	M2.4, M4.5, M5.1	RC-02, RC-09	v1
CW-17	TRADOC Regulation 350-70 (Jul 2017)	Policy for production, implementation, evaluation; triggering circumstances for review/revision; integrates ADDIE.	Trigger-based review cadence; change-control realism	A-14, A-12	M5.4	RC-07, RC-09	v1
CW-18	NARA Records Management Curriculum 2.0	Federal records training: naming conventions, shared drive management, lifecycle review, metadata discipline.	Naming conventions and metadata checklist in A-13 and A-12	A-13, A-12	M2.5, M5.3	RC-08	v1
CW-19	DoD OIG DODIG-2025-056	QA failures in CMMC C3PAO authorization – oversight bodies audit the compliance ecosystem itself.	Audit-the-auditors realism case; embedded as M5.4 vignette	Case+A-10, A-14	M4.1, M5.4	RC-05, RC-09	v1
CW-20	Federal Register DFARS Case 2019-D041 (eff. Nov 10, 2025)	Final rule implementing CMMC via DFARS; three-year phased rollout; change-control planning required.	Phased compliance constraint as change-control realism input	A-12, A-14	M5.4–M5.5	RC-07	v1



ID	S/C	OPERATIONAL REQUIREMENT	CONTROL	ART.	MOD.	RC	VER.
CW-21	CMMC FAQs (DFARS clause 252.204-7021)	CMMC rolled out in phases over three years; dated assumptions in contractor documentation required.	All artifacts must be dated; assumptions cited with source	All	All	RC-01, RC-07	v1
CW-22	CMMC Model Overview v2.0	CMMC domains map to NIST 800-171 requirement families; Level 2 aligns to 800-171 for CUI protection.	Domain realism: traceability and evidence non-negotiable in DIB	A-02, A-04	M2.1–M2.5	RC-02	v1
CW-23	Section 508.gov (Official USG Resource)	Revised 508 Standards originate from Access Board final rule; apply to all federal ICT including eLearning.	Accessibility as compliance requirement, not usability enhancement	A-08	M4.1–M4.5	RC-04	v1
CW-24	Section 508 Refresh Final Rule (Access Board, 82 Fed. Reg. 5790)	Revised 508 Standards incorporate WCAG 2.0 by reference for web and non-web ICT. E205 defines electronic content requirements.	Correct legal conformance target; exceptions must be documented	A-08	M4.1–M4.5	RC-04	v1
CW-25	DHS Trusted Tester Process (Section 508 Conformance Testing)	TT process validates conformance; endorsed as standardized method; test process meets Revised 508 including WCAG 2.0 A/AA. Agencies require certified testers for TT-only acceptance.	Standardized accessibility validation with evidence records; tester qualification REQUIRED field in A-08	A-08, A-10	M4.2, M4.4	RC-04	v1
CW-26	WCAG 2.2 (W3C Recommendation, Oct 2023)	WCAG 2.2 is NOT the current legal baseline for Revised 508 compliance. Legal minimum: WCAG 2.0 AA per the 2017 Revised Standards. Implementing WCAG 2.1 or 2.2 as forward-compatible improvements is acceptable and common federal practice; agencies may legitimately adopt higher versions as their operational standard. Hard fail = misclaiming a higher WCAG version as the legal compliance threshold (WCAG 2.0 AA) rather than correctly identifying it as an agency operational choice above the legal floor.	Beyond-minimum roadmap; clearly labeled aspirational not legal baseline. Claiming 2.2 = hard fail.	A-08	M4.5	RC-04	v1
CW-27	IEEE Std 828-2012 / ISO/IEC/IEEE 10007:2017 (Config Mgmt)	Requirements and guidance for configuration management: identification, control, status accounting, and audit.	Version control and CM discipline for training artifacts and LMS content objects	A-12	M4.3–M5.5	RC-07	v1



ID	S/C	OPERATIONAL REQUIREMENT	CONTROL	ART.	MOD.	RC	VER.
CW-28	SAE EIA-649-1A (Config Mgmt for Defense Contracts)	Defense-specific CM: baseline establishment, change control, and records.	Baseline management and change control for training system deliverables in defense contracting	A-12, A-16	M4.3–M5.5	RC-07, RC-09	v1
CW-29	ISO 10006:2017 (Quality Management in Projects)	[Governance Analogue] – Guidelines for QM in projects: planning, monitoring, and improvement of project processes.	Project-level QM planning as analogue for training development governance	A-14, A-16	M5.1–M5.5	RC-09	v1
CW-30	NIST SP 800-37 Rev. 2 (RMF)	[Governance Analogue] – A-130 requires RMF; stresses lifecycle security and privacy integration.	Training system lifecycle mapped to RMF framing for security/privacy	A-16	M5.1–M5.5	RC-06	v1
CW-31	DoD CIO CMMC Model Overview v2.0 (Dec 2021)	CMMC Level ½/3 domains; documented, repeatable compliance evidence expected at all levels.	In traceability and evidence packaging scenarios	A-01, A-04, A-17	M2.5, M5.2–M5.5	RC-02	v1
CW-32	Al Azawei et al. (2025) GMP Inspections Scoping Review	Inspection-ready documentation requires documented, repeatable compliance evidence workflows.	Research anchor for evidence-first design philosophy; compliance training effectiveness	A-07	M3.4, M5.4	RC-03	v1
CW-33	Botha & Van der Merwe (2025) Compliance Training Effectiveness	Framework for assessing compliance training effectiveness; measurable outcomes required.	Assessment design and evaluation framing; Level 2/3 evaluation in P-09	A-07, P-09	M3.4, M5.4	RC-03	v1
CW-34	Frazier-Aich et al. (2023) ISD for Compliance Audit	Instructional design for socially distanced compliance audit context; distributed delivery constraints.	Blended delivery design; async alternative design; distributed cohort governance	P-02, A-11	M4.5, M5.1	RC-02	v1
CW-35	ADL cmi5 Specification v1.0	cmi5 defines controlled launch, xAPI-native AU completion, and session tracking – superior to SCORM for audit evidence.	Content packaging standard; A-11 deployment spec; LRS integration	A-11	M4.5	RC-07, RC-08	v1
CW-36	ADL xAPI Specification v1.0.3	xAPI defines statement structure for compliance evidence verbs: completed, passed, failed, experienced.	xAPI statement design spec in A-11;	A-11, A-13	M4.5, M5.3	RC-07, RC-08	v1



ID	S/C	OPERATIONAL REQUIREMENT	CONTROL	ART.	MOD.	RC	VER.
			LRS retention tied to FAR 4.703				
CW-37	FAR 52.203-13©(2)(ii)©	Internal control system requires periodic reviews, monitoring, auditing, evaluation, and risk assessment; corrective measures must be promptly instituted.	Risk register; monitoring metrics; CAPA-style remediation loop	A-03, A-14, A-15	M1.5, M3.5, M5.4	RC-09	v1
CW-38	2 CFR Part 200 Subpart F §200.501 (Uniform Guidance)	Even entities exempt from single audit threshold must maintain records available for review by federal agencies, pass-through entities, and GAO.	General “records must be reviewable” principle for grant-funded contexts	A-13	M5.3, M5.5	RC-08	v1

4.2. CROSSWALK MAINTENANCE AND EXPANSION RULES

CW identifiers are stable configuration items. Once assigned, CW numbers are not renumbered. New authorities or clause-level refinements must be appended sequentially (CW-XX+1).

A new CW item should be added when:

- a regulatory authority introduces a new operational requirement affecting training system design, governance, or audit evidence;
- an existing authority adds a materially new clause that changes operational expectations; or
- an oversight or audit body introduces guidance that materially affects compliance verification.

Clause-level references (such as specific FAR or Uniform Guidance subsections) may be added as supplemental CW items when they materially clarify operational expectations already represented by a parent authority. Append-only expansion preserves traceability between the crosswalk and artifact mappings throughout the document.

SCOPE BOUNDARY NOTE:

This crosswalk is not intended to represent the complete universe of federal regulatory authorities. Instead, it captures the core authorities most likely to influence the design, governance, verification, and audit readiness of training systems supporting federal and defense contracting environments.

Collectively, the learner artifact set (A-01 through A-17) in section 5 below operationalizes all crosswalk authorities (CW-01 through CW-38). Each CW item is mapped to one or more artifacts that produce verifiable compliance evidence. No crosswalk authority is represented without a corresponding artifact-level operational control.



SECTION 5: LEARNER "CONTROLLED" ARTIFACT CATALOGS

5.1. LEARNER ARTIFACT CATALOG (A-01 TO A-17)

Every learner deliverable in this course is treated as a controlled artifact — assigned an Artifact ID, version number, author, completion date, and regulatory source citations where applicable. This simulated controlled document system mirrors federal record-keeping expectations (FAR 4.7 electronic record integrity, OMB A-123 documentation of oversight reviews, and DCAA documentation standards) and functions simultaneously as a course deliverable framework and a portfolio packaging schema, including A-08 (tester qualification field, CW-14) and A-12/A-13 (NARA naming conventions and metadata, CW-18). (RC-11 hard fail if any metadata field blank).

The artifact set is the mechanism by which the course operationalizes compliance expectations: each artifact is a controlled evidence-producing instrument with explicit scope rules, verification expectations, and traceability requirements.

NOTE ON "CONTROLLED" LANGUAGE:

For instructional purposes, all learner artifacts are treated as controlled documents within the simulated compliance environment used in this course. These artifacts should not be interpreted as authentically controlled records unless their status can be independently verified within an operational document control system (e.g., a governmental, contractor, institutional, or corporate records management system). To support audit-ready design practices, each artifact produced in the course must include the following document control metadata:

- Author
- Date
- Version number
- Review/Approval indicator
- Document control designation

Any artifact missing one or more required metadata fields constitutes a hard-fail condition (RC-11) within the course evaluation framework.

(ART.=Artifact; CW=Crosswalk Anchors; MOD.=Module(s); FORM.=Format; LIFECYCLE=Lifecycle stage sequence):

ID	ART.	EVIDENCE PURPOSE	NOTES	CW	MOD.	FORM.	LIFECYCLE
A-01	Evidence Brief	Scope, compliance drivers, evidence outputs, failure modes, assumptions (dated).	RC-11 metadata required; dated assumptions	CW-01, CW-09, CW-21	M1.3, M1.5	Document	Draft → In-Review → Accepted → Released → Archived
A-02	Reg-to-Training Map	Converts compliance clauses to trainable requirements; requirement-evidence linkage.	CW-22 domain realism	CW-01, CW-15, CW-22	M1.5, M2.1	Spreadsheet	Draft → In-Review → Accepted → Released → Archived
A-03	Training Risk Register	Performance risks → mitigations → detection methods → evidence; ≥2 non-training controls.	Unchanged	CW-03, CW-14, CW-37	M1.5	Spreadsheet	Draft → In-Review → Accepted → Released → Archived
A-04	Traceability Matrix	Complete req-to-verification chain; ≥15 rows; edge cases; retention/index field.	Retention/index field; NARA naming initiated	CW-10, CW-16, CW-22	M2.3, M2.5	Spreadsheet	Draft → In-Review → Accepted → Released → Archived
A-05	Workflow Decomposition	Decision points, exceptions, tacit steps — TRADOC task analysis structure.	TRADOC product framing (CW-16)	CW-16	M2.4	Diagram + narrative	Draft → In-Review → Accepted → Released → Archived



ID	ART.	EVIDENCE PURPOSE	NOTES	CW	MOD.	FORM.	LIFECYCLE
A-06	Performance Support Job Aid	On-the-job reference for highest-risk steps; accessible; point-of-need.	A11Y-C required; accessible PDF	CW-16	M3.3	Accessible PDF	Draft → In-Review → Accepted → Released → Archived
A-07	Assessment Plan and Rubric	Performance tasks, criteria, thresholds, remediation, evidence storage; A-04 cross-links.	CW-32/CW-33 research anchors	CW-10, CW-32, CW-33	M3.4	Document	Draft → In-Review → Accepted → Released → Archived
A-08	Accessibility Validation Plan	Revised 508/WCAG 2.0 baseline; TT-aligned method; tester qualification field (REQUIRED); evidence; defect workflow.	TESTER QUALIFICATION REQUIRED FIELD; hard fail if blank	CW-23, CW-24, CW-25, CW-26	M4.4	Document + checklists	Draft → In-Review → Accepted → Released → Archived
A-09	Security and Data Handling Plan	CUI/PII scope; storage; access controls; sanitization; encryption; Privacy Act applicability determination; PII inventory.	Privacy Act determination REQUIRED	CW-04, CW-13, CW-30	M4.5	Document	Draft → In-Review → Accepted → Released → Archived
A-10	QA/UAT Plan	Functional test cases; acceptance criteria; defect workflow (open/retest/close); trace links to A-04.	DoD OIG DODIG-2025-056 QA realism vignette	CW-05, CW-10, CW-19	M4.3	Checklist + log	Draft → In-Review → Accepted → Released → Archived
A-11	LMS Deployment and Reporting Plan	Content packaging (cmi5/SCORM); upload/testing; versioning; reporting; xAPI statement design spec; LRS retention alignment.	xAPI statement design spec; cmi5 packaging; mobile test	CW-02, CW-12, CW-35, CW-36	M4.5	Worksheet	Draft → In-Review → Accepted → Released → Archived
A-12	Version Log and Release Notes	Config management spine: all artifact versions, author, date, rationale. NARA naming convention required.	NARA naming: YYYYMMDD_ArtifactID_vX.X_Initials	CW-02, CW-09, CW-18, CW-27, CW-28	All	Spreadsheet	Open → Amended → Closed-Version → Archived
A-13	Records Retention Plan	Retention basis by clause; NARA naming; metadata checklist; electronic audit trail; retrieval index; xAPI/LRS retention.	NARA naming + metadata + xAPI retention alignment	CW-02, CW-04, CW-18, CW-36, CW-38	M5.3	Document	Draft → In-Review → Accepted → Released → Archived
A-14	Continuous Improvement and Monitoring Plan	Evaluation metrics; trigger-based review schedule; remediation loop; CMMC phase-change trigger.	Trigger table per TRADOC TR 350-70 (CW-17); CW-20 phase trigger	CW-03, CW-05, CW-17, CW-20, CW-29, CW-37	M5.4	Document	Draft → In-Review → Accepted → Released → Archived
A-15	Defect Log and CAPA Plan	CAPA lifecycle: finding, root cause, action, milestones, verification of correction.	Unchanged; 2 CFR 200.521 framing	CW-06, CW-19, CW-37	M3.5, M5.4	Log + plan	Draft → In-Review → Accepted → Released → Archived
A-16	Governance and RACI Plan	Owners, approvals, trigger-based review cadence, control responsibilities, lifecycle coverage.	Trigger-based cadence; EIA-649-1A config. 16ompl. framing	CW-03, CW-16, CW-17, CW-28, CW-29	M5.1	Document	Draft → In-Review → Accepted → Released → Archived
A-17	Audit Response Packet	Complete indexed folder enabling ≤10-min retrieval. NARA naming convention applied.	NARA naming; timed retrieval drill required at Gate 5	CW-06, CW-14	M5.2, M5.5	Folder structure + index	Draft → Gate-Review → Revision → Final-Accepted → Archived

NOTE ON LIFECYCLE GOVERNANCE: All artifact lifecycle stage transitions must be recorded with author ID, date, and version increment in the artifact's RC-11 metadata block. Transition from In-Review to Accepted requires either instructor gate sign-off



(primary mechanism) or documented peer review completion per the Peer Review Calibration Rubric (Section 8.4). Lifecycle stage management mirrors configuration item lifecycle conventions established under ISO/IEC/IEEE 10007:2017 (CW-32) and is consistent with DoD configuration management practice (CW-31).

5.2. TRAINING SUPPORT PACKAGE (TSP) (P-01 TO P-10)

Course-level controlled documents produced by the designer. Mirrors TRADOC training support package expectations (CW-16). All P-docs are controlled documents subject to RC-11 metadata requirements.

(CW=Crosswalk anchors):

ID	ARTIFACT	PURPOSE AND CONTENTS	CW
P-01	Course Administrative Data	Schedule, prerequisites, delivery rules, version history, approval authority, review triggers, technology stack documentation (FedRAMP authorization references).	CW-15, CW-16, CW-17
P-02	Instructor / Facilitator Guide	vILT run-of-show, facilitation scripts, time checks, discussion prompts, calibration anchors for all 5 vILT sessions. Lead Instructor + Support Facilitator role split. SME panelist prep guide.	CW-16, CW-34
P-03	Participant Guide	Job aids, checklists, artifact template summary, glossary, RC/A11Y/SEC/MM/VC code quick reference card.	CW-15, CW-16
P-04	Template Pack (A-01–A-17)	Pre-formatted, accessible, version-controlled templates; required field prompts; NARA naming guidance embedded; metadata fields pre-populated for completion.	CW-18
P-05	Anchor Exemplar Set	Exemplary, acceptable, and fragile examples for A-01, A-04, A-07, A-08 — the four calibration-critical artifacts. Includes DoD OIG vignette framing.	CW-05, CW-19
P-06	Rubrics and Scoring Keys	Complete capstone rubric with RC-01–RC-11, 0–4 scoring scale, worked examples. Weekly artifact rubric quick references. Capstone: 106 points total.	CW-05
P-07	Accessibility Plan for the Course Itself	Documents on how the course meets Revised 508 standards: captions, accessible documents, alt text, keyboard navigation. The course’s own A-08 analog.	CW-23, CW-24, CW-25
P-08	Security and Data Handling SOP	Sanitization rules for scenario content; data classification; protocols for unexpectedly sensitive learner submissions; Privacy Act applicability for LMS records.	CW-13, CW-30
P-09	Evaluation Plan and Instruments	Level 1 (satisfaction), Level 2 (skill — RC criteria), Level 3 (transfer — 30/90-day follow-up for employed cohorts). Metrics aligned to CW-05 QMS documentation.	CW-05, CW-17, CW-29, CW-33
P-10	Course Version History and Revision Record	Course-level controlled log: revision triggers, change descriptions, approval sign-off, prior version archive. NARA naming conventions applied.	CW-17, CW-18



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SECTION 6: COURSE AND INSTRUCTIONAL DESIGN ARCHITECTURE

6.1. OPERATIONALIZED INSTRUCTIONAL FRAMEWORKS AND MODELS

The following frameworks are operationalized in the course design rather than referenced abstractly. Each framework informs specific design decisions that are visible in module sequencing, artifact design, assessment specifications, or instructional delivery structures.

FRAMEWORK	OPERATIONALIZATION	VISIBLE DESIGN EVIDENCE
Knowles Adult Learning Theory (Andragogy)	Self-direction, need-to-know, experience-as-resource, and problem-centered orientation guide activation activities. X.1 lessons explicitly connect to learners' existing ISD practice.	All X.1 activation subunits; Week-0 bridge (if used); prompt responses
Backward Design (Wiggins & McTighe / UbD)	Course design begins with required performance evidence and auditor expectations; learning activities exist to produce artifacts that demonstrate defensible compliance practice. Each A-xx artifact represents the intended performance evidence rather than a by-product of instruction.	Artifact specifications (A-01–A-17); A-01 Evidence Brief design process; A-07 criterion alignment
Merrill's First Principles of Instruction (MPI)	Applied recursively at three levels: course arc, module arc, and subunit structure. Task-centered instruction structures the course.	Entire course architecture; five-lesson structure within each module
Cognitive Apprenticeship (Collins et al.)	vILT workshops model expert reasoning via think-aloud demonstrations; learners observe before independent artifact production; scaffolding fades across Modules 2→5.	All X.2 vILT lessons; gradual shift from scaffolded to independent artifact production
Evidence-Centered Design (Mislevy et al., 2003)	Assessments specify student model, evidence model, and task model; artifact evidence is required to demonstrate competence. Completion alone is never accepted as evidence.	A-07 Assessment Plan; lesson assessment specifications; RC-03 verification discipline
QMS Logic (GAO Yellow Book 2024 / ISO 10006)	The course models the governance discipline it teaches: version control, acceptance gates, peer calibration, monitoring loops, and CAPA.	A-12 Version Log; A-15 CAPA Plan; acceptance gate pipeline (Section 8)
Rapid Prototyping / Iterative Feedback (Fraizer-Aich et al., 2023; TRADOC SAM)	Weekly prototype → review → revision → gate release cycle mirrors real compliance-training development under contract constraints.	Section 8 prototype gates; X.4 and X.5 lessons
Retrieval Practice (Corral, 2025)	Knowledge retrieval and misconception scanning are embedded in activation lessons to strengthen retention and transfer.	All X.1 activation lessons
Worked Examples / CLT (Lange, 2021; Sweller)	Expert worked examples reduce intrinsic cognitive load and demonstrate expected artifact quality before independent work begins.	X.2 vILT workshops

6.2. MACRO-LEVEL COURSE MPI SCAFFOLD (ACROSS MODULES)

The five-module sequence mirrors Merrill's Principles of Instruction (MPI) at the course level. Each module performs a distinct role within the instructional arc, progressively increasing regulatory and technical complexity in a sequence aligned with the cognitive load progression appropriate for experienced practitioners entering a regulated domain context.

(M.=Module):



M.	MPI PHASE	INSTRUCTIONAL FUNCTION	PRIMARY ARTIFACT OUTPUTS
M1	Orientation & Activation	Establishes that training in regulated environments functions as an internal control system rather than content delivery. Activates prior ISD knowledge through FAR and OMB governance lenses.	A-01 Evidence Brief · A-03 Risk Register · A-12 Version Log
M2	Demo-nstration	Models the complete traceability chain from requirement to verification to evidence. Learners observe expert reasoning before independent artifact construction.	A-02 Reg-to-Training Map · A-04 Traceability Matrix · A-05 Workflow Decomposition
M3	Application	First fully independent production cycle. Learners create performance support and defensible assessment artifacts addressing the common “completion-only training” failure mode.	A-06 Job Aid · A-07 Assessment Plan + Rubric
M4	Integration	Integrates accessibility validation, QA/UAT testing, security scoping, and LMS operations into a unified compliance-ready workflow.	A-08 Accessibility Plan · A-09 Security Plan · A-10 QA/UAT Plan · A-11 LMS Deployment Plan
M5	Synthesis & Capstone	Synthesizes all artifacts into a governed audit-response package. Learners defend artifact quality under time-constrained retrieval conditions.	A-13–A-17 final · complete A-01–A-17 bundle

6.3. LESSON-LEVEL MPI STRUCTURE (APPLIED ACROSS ALL MODULES)

Within each module, the five lessons follow MPI logic as well. This nested recursion (MPI at course, module, and lesson levels) models intentional scaffolding and supports transfer while controlling extraneous cognitive load. Non-instructional operational steps – such as tooling setup, template onboarding, or logistical orientation activities – may be inserted within or between MPI phases where required by the instructional context without breaking the overarching MPI structure; the five-phase cycle governs instructional sequencing logic, not procedural housekeeping.

(L=Lesson; MODE= Delivery mode; DUR.=Duration):

L	MPI PHASE	MODE	DUR.	INSTRUCTIONAL FUNCTION
X.1	ORIENTATION & ACTIVATION	Async (LMS)	60–90 min	Activates prior knowledge; introduces domain-specific framing; surfaces misconceptions and overclaims
X.2	DEMONSTRATION	vILT Workshop	90 min	Instructor-modeled worked examples; coached practice; live critique; rubric calibration
X.3	APPLICATION	Async (LMS)	60–90 min	Independent artifact production using scaffolded templates
X.4	INTEGRATION	Async (LMS)	60–90 min	Cross-artifact linkage; peer/self review; exception handling
X.5	SYNTHESIS & ADVANCED CONSIDERATIONS	Async (LMS)	120–180 min	Portfolio-grade artifact completion; acceptance gate review; advanced scenarios / capstone integration



SECTION 7: MODULE SPECIFICATIONS

CONTEXT AND BACKGROUND

Each module provides: MPI phase, artifact targets, CW anchors, acceptance gate, and 5-lesson table using Section 3 code library. Time reflects intensive track; standard track extends Module 5 across an extra week.

Each attribute table below defines the operational contract for the module. The Artifact Targets describe the exact evidence-producing outputs learners must generate. CW Anchors define the regulatory or standards scope that justifies those outputs; they limit what the module is allowed to claim. Acceptance Gate criteria define the verification conditions that determine whether the module artifacts demonstrate defensible compliance evidence. Any lesson activity that cannot be traced to one of the Artifact Targets, Acceptance Gate criteria, or CW Anchors should be considered out-of-scope and removed or explicitly justified.

How to read the lesson tables: Each lesson row specifies the minimum set of activities required to produce verifiable artifacts. “Objectives” describe the evidence learners must ultimately produce, not topics they must understand. “Activities” describe the smallest set of tasks necessary to generate that evidence. “Artifacts” are the controlled outputs that must be versioned in A-12 and included in the final evidence set. Assessment and Rubric Codes specify the criteria that determine whether the artifact demonstrates defensible compliance evidence. Completion of an activity is never treated as evidence; only the artifact produced and its traceability to the requirement chain determine success.

SECTION 7 INTERPRETATION NOTE:

This section is written as an executable design specification rather than a narrative syllabus. Each module defines the evidence artifacts learners must produce, the regulatory anchors that justify those artifacts, and the acceptance conditions used to evaluate them. The lesson tables are therefore not intended to prescribe teaching style; they specify the minimum evidence-generating workflow required for the course to demonstrate audit-ready training system design. Instructors may adapt scenarios, delivery tools, or examples, but they must preserve the artifact outputs, acceptance gate criteria, and regulatory scope defined in the module specifications.

7.1. MODULE 1: TRAINING SYSTEMS AS INTERNAL CONTROLS

Module-level design intent: Module 1 establishes the epistemic shift required for the rest of the course. The tables below describe artifacts and acceptance gates, but they do not explicitly show the conceptual inversion that drives them: learners must reframe training outputs as internal control evidence rather than instructional deliverables. The artifact set (A-01, A-03, A-12) therefore focuses on scope definition, risk identification, and version traceability before any instructional design artifacts appear. This sequence intentionally mirrors real audit environments, where scope assumptions, risk framing, and documentation discipline must exist before training design work begins.

ATTRIBUTE	DETAIL
MPI PHASE	Orientation & Activation (Course Level)
ARTIFACT TARGETS	A-01 Evidence Brief v1.1 · A-03 Training Risk Register v1 · A-12 Version Log v0.1 (NARA naming initiated, RC-11 metadata fields all populated)
CW ANCHORS	CW-01, CW-03, CW-05, CW-07, CW-09, CW-14, CW-15
ACCEPTANCE GATE 1	No unsupported compliance claims (RC-01); Evidence outputs specific and behavior-based (RC-03); A-03 complete with ≥2 non-training controls; A-12 initiated with NARA naming and author/date metadata (RC-07, RC-11)



ATTRIBUTE	DETAIL
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MODULE OBJECTIVE	EO.M1: Construct an evidence brief that frames a regulated training workflow in terms of required performance evidence, failure modes, compliance drivers, and scope assumptions.
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Module-1 implementation nuance: The lesson table that follows intentionally front-loads diagnostic and error-analysis activities rather than production tasks. This reflects a common failure pattern in compliance training programs—teams begin building content before identifying failure modes or evidence requirements. Lessons 1.1–1.3 therefore function as diagnostic exercises that surface hidden assumptions about compliance evidence, while Lessons 1.4–1.5 transition learners into controlled artifact production. Instructors should resist accelerating artifact work in early lessons; the diagnostic phase is necessary to prevent later traceability defects.

ID / TITLE / TIME / MPI	OBJECTIVES ACTIVITIES ARTIFACTS	ASSESSMENT RUBRIC CODES FORMATIVE TARGET	A11Y/SEC MM VC THEORY CW
<p>1.1 Auditor Questions First: Training as Control vs. Content</p> <p>60–90 min async</p> <p>MPI: Orientation & Activation</p>	<p>Lesson Objectives (support EO.M1): (LO.1.1.1) Differentiate “training delivered” vs. “training as an internal control” using FAR 52.203-13 framing. (LO.1.1.2) Identify ≥5 audit failure modes in a provided vignette. (LO.1.1.3) Connect FIAR Report (CW-14) framing to audit-readiness as continuous posture.</p> <p>Activities: Failure-mode vignette analysis (annotated failed audit scenario). Evidence-type sorting exercise (12 items). FIAR Report context reading: “why audit-readiness is never done.” Auto-scored terminology quiz (10 items). Initiate A-12 at v0.1.</p> <p>Artifacts: A-12 v0.1 (NARA naming: YYYYMMDD_A12_v0.1_Initials); annotated vignette (ungraded)</p>	<p>Assessment: Auto-scored quiz + written reflection: clause citation accuracy, evidence vs. content distinction, ≥5 failure modes. Andragogy prompt: “How does your current design process handle evidence?”</p> <p>Rubric: RC-01, RC-03, RC-10, RC-11</p> <p>Formative: Misconception heatmap tunes vILT 1.2 emphasis.</p>	<p>A11Y/SEC: A11Y-C · SEC-S (sanitized scenarios)</p> <p>MM: MM-W: 8–10 min captioned micro-lecture on training-as-control (FAR 52.203-13, OMB A-123, FIAR framing)</p> <p>VC: VC-L: Initiate A-12 v0.1 with NARA naming; all metadata fields populated</p> <p>Theory: Retrieval practice (Corral, 2025); error-based learning; Knowles andragogy: experience-as-resource activation.</p> <p>CW: CW-01, CW-03, CW-14, CW-15, CW-37,</p>
<p>1.2 vILT: Requirement → Evidence Chain – Live Construction</p> <p>90 min vILT</p> <p>MPI: Demonstration</p>	<p>Lesson Objectives (support EO.M1): (LO.1.2.1) Draft one [requirement → objective → evidence] claim chain. (LO.1.2.2) Identify ambiguity that would fail a compliance reviewer.</p> <p>Activities: Instructor live-models requirement → evidence chain with think-aloud (MM-D). Learner pairs build second chain. Group critique. Q&A on misconceptions from 1.1 heatmap.</p> <p>Artifacts: Draft A-01 outline · A-12 updated (VC-L)</p>	<p>Assessment: Checkpoint: chain includes specific verification object (not attendance); ambiguity identified is clause-specific. RC-11: metadata fields populated.</p> <p>Rubric: RC-01, RC-03, RC-11</p> <p>Formative: Capture stuck points for template revision.</p>	<p>A11Y/SEC: A11Y-C (live captions required); SEC-S</p> <p>MM: MM-D: Instructor screen-share with live annotation on evidence claim template (recorded, archived per A-12)</p> <p>VC: VC-L: vILT design decisions logged in A-12; recording archived</p> <p>Theory: Cognitive apprenticeship: modeling → coached practice. Worked example with think-aloud (Lange, 2021).</p> <p>CW: CW-01, CW-10</p>
<p>1.3 Evidence Brief v1 – Scope, Constraints, Evidence Outputs</p>	<p>Lesson Objectives (support EO.M1): (LO.1.3) Produce A-01 v1: regulatory driver cited, evidence outputs defined, scope assumptions dated, self-contained narrative, all metadata fields populated (RC-11).</p>	<p>Assessment: Rubric: clause correctly cited and scoped (RC-01), evidence outputs specific and behavior-based (RC-03), assumptions dated (RC-10), metadata complete</p>	<p>A11Y/SEC: A11Y-C · SEC-B (template includes data classification field)</p> <p>MM: Optional: 5-min audio walkthrough of A-01 exemplar from P-05 (captioned)</p>



ID / TITLE / TIME / MPI	OBJECTIVES ACTIVITIES ARTIFACTS	ASSESSMENT RUBRIC CODES FORMATIVE TARGET	A11Y/SEC MM VC THEORY CW
60–90 min async MPI: Application	<p>Activities: Template-driven writing using P-04 A-01 template. Requirement scoping exercise. Scope creep self-check. CMMC phase assumption dating (CW-09, CW-21).</p> <p>Artifacts: A-01 v1 · A-12 updated (VC-L, VC-A)</p>	<p>(RC-11).</p> <p>Rubric: RC-01, RC-03, RC-10, RC-11</p> <p>Formative: Instructor spot-audit 20% of briefs for scope drift and overclaiming before Gate 1.</p>	<p>VC: VC-L/VC-A: A-01 v1 committed; release note entered</p> <p>Theory: Backward design (evidence-first); ECD task model; UbD Stage 1 (desired results).</p> <p>CW: CW-01, CW-09, CW-21</p>
1.4 Peer Review Calibration – Applying the Audit Lens	<p>Lesson Objectives (support EO.M1): (LO.1.4) Score 2 peers’ A-01 briefs using course rubric; provide findings-level feedback; target ≥0.75 inter-rater agreement with anchor exemplars from P-05.</p>	<p>Assessment: Peer review scored on: specificity of feedback (findings not opinions), RC criteria alignment, identification of missing evidence or unsupported assumptions.</p>	<p>A11Y/SEC: A11Y-C · Peer IDs anonymized where possible</p> <p>MM: Short video: “Writing Auditor-Grade Findings” (captioned, 6–8 min, from P-02)</p> <p>VC: VC-L: Log peer review changes with rationale in A-12</p> <p>Theory: QMS peer review calibration mirrors GAGAS inter-rater discipline (CW-05). Calibration threshold measurable.</p> <p>CW: CW-05</p>
60–90 min async MPI: Integration	<p>Activities: Structured peer review using P-06 rubric. Score reconciliation against P-05 anchor exemplars. Revise A-01 based on feedback. Instructor reports inter-rater variance to cohort.</p> <p>Artifacts: Peer review forms · A-01 v1.1 (revised); A-12 updated (VC-L)</p>	<p>Rubric: RC-10 (primary), RC-01, RC-03</p> <p>Formative: Instructor compares 5 random review pairs against P-05 anchors. Target: ≥0.75 inter-rater agreement.</p>	<p>VC: VC-L: Log peer review changes with rationale in A-12</p> <p>Theory: QMS peer review calibration mirrors GAGAS inter-rater discipline (CW-05). Calibration threshold measurable.</p> <p>CW: CW-05</p>
1.5 Risk Register + Non-Training Controls Map	<p>Lesson Objectives (support EO.M1): (LO.1.5.1) Produce A-03 v1: performance risks, mitigations, detection methods, evidence artifacts, ≥2 non-training controls. (LO.1.5.2) A-02 draft: ≥3 clauses mapped to trainable requirements. (LO1.5.3) Gate 1 self-audit.</p>	<p>Assessment: Rubric (A-03): risk clarity, severity/likelihood, detection method, evidence artifacts, ≥2 non-training controls (RC-09). Rubric (A-02): clauses correctly scoped (RC-01).</p>	<p>A11Y/SEC: A11Y-C · SEC-S</p> <p>MM: MM-S: 2-scenario risk branching exercise with decision prompts</p> <p>VC: VC-L/VC-A: A-03 v1 committed; A-12 release note; all RC-11 metadata fields populated</p> <p>Theory: Risk-based internal control (OMB A-123, CW-03); HPT: is training the right intervention? Knowles problem-centered orientation.</p> <p>CW: CW-01, CW-03, CW-09, CW-21, CW-37</p>
120–180 min async MPI: Synthesis	<p>Activities: Risk register build from A-01 assumptions. Non-training control identification (“is training the right intervention?”). A-02 clause-to-requirement mapping. Gate 1 self-audit checklist.</p> <p>Artifacts: A-03 v1 · A-02 draft · A-12 updated (VC-L/VC-A). Gate 1 check.</p>	<p>Rubric: RC-01, RC-03, RC-09, RC-11</p> <p>Formative: Gate 1: A-01 v1.1 + A-03 v1 meet rubric minimums; A-12 metadata complete. Module 2 locked until gate passes.</p>	<p>A11Y/SEC: A11Y-C · SEC-S</p> <p>MM: MM-S: 2-scenario risk branching exercise with decision prompts</p> <p>VC: VC-L/VC-A: A-03 v1 committed; A-12 release note; all RC-11 metadata fields populated</p> <p>Theory: Risk-based internal control (OMB A-123, CW-03); HPT: is training the right intervention? Knowles problem-centered orientation.</p> <p>CW: CW-01, CW-03, CW-09, CW-21, CW-37</p>

7.2. MODULE 2: TRACEABILITY AND EVIDENCE PACKAGING

Module-level design intent: Module 2 converts regulatory language into operational verification architecture. While the tables identify traceability artifacts (A-04, A-05) and records logic (A-13 outline), they do not explicitly show that this module represents the structural backbone of the entire course. Every artifact produced in later modules must map back to the traceability matrix constructed here. For that reason, Module 2 prioritizes structural completeness (≥15 rows, edge cases, retention fields) over instructional polish. A partially correct matrix that exposes missing verification objects is pedagogically more valuable than a polished but shallow one.



ATTRIBUTE	DETAIL
MPI PHASE	Demonstration
CW ANCHORS	CW-02, CW-09, CW-10, CW-16, CW-18, CW-21, CW-22, CW-27
ACCEPTANCE GATE 2	A-04 v1: ≥15 rows complete, no attendance-only evidence, scope statement, retention/index field, NARA naming. A-05 v1 with edge cases. All RC-11 metadata populated.
ARTIFACT TARGETS	A-04 Traceability Matrix v1 (≥15 rows, edge cases, retention/index field, NARA naming); A-05 Workflow Decomposition v1; A-13 Records Plan outline
MODULE OBJECTIVE	EO.M2: Produce a complete traceability matrix linking regulatory requirements through learning objectives, learning activities, assessments, evidence artifacts, and verification methods — with ≥15 rows and documented edge cases.

Module-2 implementation nuance: The lesson sequence is deliberately organized to alternate between contrast analysis and construction tasks. Lessons 2.1 and 2.2 emphasize diagnostic detection of traceability gaps before independent matrix construction begins. This ordering mirrors audit practice: reviewers first identify broken chains of evidence before attempting to rebuild them. Instructors should maintain this sequence and avoid turning the module into a spreadsheet-building exercise; the primary learning outcome is the ability to recognize when traceability logic is incomplete or misleading.

ID / TITLE / TIME / MPI	OBJECTIVES ACTIVITIES ARTIFACTS	ASSESSMENT RUBRIC CODES FORMATIVE TARGET	A11Y/SEC MM VC THEORY CW
<p>2.1 Traceability Gaps That Trigger Findings</p> <p>60–90 min async</p> <p>MPI: Orientation & Activation</p>	<p>Lesson Objectives (support EO.M2): (LO.2.1) Identify ≥4 missing or broken traceability links in a flawed 7-row matrix and explain why each gap would be cited as a finding.</p> <p>Activities: Spot-the-gap exercise (3 deliberate gaps). Sample audit finding analysis citing traceability failures. Error frequency heatmap from submissions informs vILT 2.2.</p> <p>Artifacts: A-04 skeleton (NARA naming); A-12 updated</p>	<p>Assessment: Short analysis: gap identification accuracy, rationale linking gap to specific review criterion, correction recommendation.</p> <p>Rubric: RC-02, RC-11</p> <p>Formative: Error heatmap identifies most-common gap types for vILT 2.2 emphasis.</p>	<p>A11Y/SEC: A11Y-C · SEC-S</p> <p>MM: MM-W: 6–8 min captioned walkthrough of complete trace matrix row vs. flawed version</p> <p>VC: VC-L: A-04 skeleton committed with NARA naming; RC-11 metadata populated</p> <p>Theory: Contrasting cases; diagnostic assessment; Knowles need-to-know activation.</p> <p>CW: CW-10, CW-16, CW-22</p>
<p>2.2 vILT: Live Trace Matrix Build — Requirement to Verification Object</p> <p>90 min vILT</p> <p>MPI: Demonstration</p>	<p>Lesson Objectives (support EO.M2): (1) Populate 5 complete trace matrix rows. (2) Specify verification objects per NIST 800-53A logic (examination/interview/test — not attendance).</p> <p>Activities: Instructor live-builds 2 rows with think-aloud (MM-D). Learner pairs build 3 rows. Group critique of 3 anonymized submissions. Verification object mapping exercise.</p> <p>Artifacts: A-04 rows 1–5 (v0.5); A-12 updated (VC-L)</p>	<p>Assessment: Checkpoint: all columns populated; verification objects behavior-based; no circular objectives.</p> <p>Rubric: RC-02, RC-05</p> <p>Formative: Rapid review of 5 participant row submissions; live corrective feedback.</p>	<p>A11Y/SEC: A11Y-C (live captions); Accessible spreadsheet provided pre-session</p> <p>MM: MM-D: Screen-share with live spreadsheet editing and annotation (recorded, archived per A-12)</p> <p>VC: VC-L: A-04 v0.5 committed; recording archived</p> <p>Theory: Cognitive apprenticeship (modeling → scaffolded practice → fading). NIST 800-53A assessment object logic.</p> <p>CW: CW-10, CW-16</p>



ID / TITLE / TIME / MPI	OBJECTIVES ACTIVITIES ARTIFACTS	ASSESSMENT RUBRIC CODES FORMATIVE TARGET	A11Y/SEC MM VC THEORY CW
<p>2.3 Traceability Matrix v1 – Independent Build</p> <p>60–90 min async MPI: Application</p>	<p>Lesson Objectives (support EO.M2): (LO.2.3) Produce A-04 v1: ≥15 rows covering main path and ≥3 edge cases; retention/index field; CUI scope statement; all RC-11 metadata fields populated.</p> <p>Activities: Independent build using P-04 A-04 template. Verification object self-check (no completion-only evidence). Retention/index field per A-13 logic.</p> <p>Artifacts: A-04 v1 (NARA naming); A-12 updated (VC-L/VC-A)</p>	<p>Assessment: Rubric: ≥15 rows complete (RC-02), behavioral objectives (RC-03), verification objects (RC-05), scope statement (RC-01), retention field (RC-08), metadata (RC-11).</p> <p>Rubric: RC-01, RC-02, RC-03, RC-05, RC-08, RC-11</p> <p>Formative: Instructor spot-audits 3 random rows per submission for verification object quality.</p>	<p>A11Y/SEC: A11Y-C · SEC-B (CUI scope statement required)</p> <p>MM: None required</p> <p>VC: VC-L/VC-A: A-04 v1 committed; release note: main path + edge cases + scope + retention field</p> <p>Theory: Backward design + measurement alignment; ECD evidence model.</p> <p>CW: CW-02, CW-10, CW-16, CW-22</p>
<p>2.4 Workflow Decomposition and Edge Case Documentation</p> <p>60–90 min async MPI: Integration</p>	<p>Lesson Objectives (support EO.M2): (LO.2.4) Produce A-05 v1 capturing all decision points, exception conditions, and tacit steps per TRADOC TP 350-70-14 task analysis structure (CW-16).</p> <p>Activities: Process mapping from workflow description. “What if” edge case protocol. Cross-reference with A-04. TRADOC product label alignment (CW-16).</p> <p>Artifacts: A-05 v1 · A-12 updated (VC-L)</p>	<p>Assessment: Rubric: operational realism, edge case coverage, explicit tacit steps, diagram has text alternative, A-04 cross-reference accurate.</p> <p>Rubric: RC-02, RC-10, RC-11</p> <p>Formative: Peer edge-case hunt: peer identifies one undocumented exception in partner’s A-05.</p>	<p>A11Y/SEC: A11Y-C · Diagrams include text-equivalent narrative · SEC-S</p> <p>MM: MM-W: 5-min micro-demo “Capturing edge cases and tacit knowledge” (captioned)</p> <p>VC: VC-L: A-05 v1 committed; A-12 cross-reference note added</p> <p>Theory: Cognitive task analysis; tacit knowledge elicitation. TRADOC task decomposition (CW-16).</p> <p>CW: CW-16</p>
<p>2.5 Evidence Packaging, Records Logic, and Retrieval Architecture</p> <p>120–180 min async MPI: Synthesis</p>	<p>Lesson Objectives (support EO.M2): (LO.2.5.1) Produce A-13 outline: evidence taxonomy, NARA naming conventions, retention basis (clause cited), indexing logic, xAPI retention alignment. (LO.2.5.2) Sketch A-17 audit packet index.</p> <p>Activities: Evidence taxonomy: all A-04 items mapped to retention basis, NARA naming, storage location. 10-minute retrieval scenario drill. CMMC Phase 1 constraint injection (CW-09) as records packaging case. Gate 2 self-audit.</p> <p>Artifacts: A-13 outline v0.5 (NARA naming); A-17 structure sketched · A-12 updated (VC-L/VC-A). Gate 2 check.</p>	<p>Assessment: Rubric (A-13 outline): retention basis per clause (RC-08), NARA naming present (RC-07), index navigable (RC-10), xAPI retention noted. Retrieval drill: ≥4/5 priority items identified.</p> <p>Rubric: RC-07, RC-08, RC-10, RC-11</p> <p>Formative: Gate 2: A-04 v1 completeness and retention field reviewed before releasing Module 3.</p>	<p>A11Y/SEC: A11Y-C · SEC-B (storage locations and access roles defined)</p> <p>MM: MM-S: “You have 10 minutes. The contracting officer sent an audit request. Go.”</p> <p>VC: VC-L/VC-A: A-13 outline committed; A-17 initiated</p> <p>Theory: Records-as-control (FAR 4.7); NARA Curriculum 2.0 lifecycle (CW-18). Systems thinking: evidence as retrievable self-documenting artifact set.</p> <p>CW: CW-02, CW-09, CW-18, CW-36</p>

7.3. MODULE 3: PERFORMANCE SUPPORT AND DEFENSIBLE ASSESSMENT

Module-level design intent: Module 3 shifts the course from documentation architecture to operational performance evidence. The artifact targets (A-06, A-07, A-15) represent the moment where training outputs begin generating verifiable evidence of workforce capability. This module therefore focuses on two structural requirements often missing from compliance programs: performance support tools that enable correct task execution in real environments, and



assessment instruments capable of producing defensible evidence rather than completion records. The CAPA artifact introduced here connects training design directly to the remediation logic used in audit and quality management systems. Module 3 also includes a structured peer red-team exercise: learners exchange draft job aids and assessment plans, apply RC-01 through RC-05 as evaluators, and produce a written defect log — simulating the SME review and QA challenge dynamic they will encounter in real program environments.

ATTRIBUTE	DETAIL
MPI PHASE	Application
ARTIFACT TARGETS	A-06 Performance Support Job Aid v1 · A-07 Assessment Plan and Rubric v1 · A-15 Defect Log and CAPA Plan v0.5 (draft)
CW ANCHORS	CW-01, CW-05, CW-06, CW-10, CW-16, CW-32, CW-33
ACCEPTANCE GATE 3	A-06 v1 passes peer time-to-use test (2 reviewers, ≤60 sec); A-07 v1: every criterion mapped to specific A-04 row, non-attendance evidence specified; all RC-11 metadata populated.
MODULE OBJECTIVE	EO.M3: Design a performance support job aid and a defensible assessment plan with rubric criteria, remediation pathways, and evidence storage specifications for a regulated workflow.

Module-3 implementation nuance: The lesson design intentionally separates the concepts of measurement and remediation. Lessons 3.1–3.3 concentrate on defining performance evidence and designing operational support artifacts, while Lessons 3.4–3.5 introduce the corrective-action perspective required when evidence reveals deficiencies. This structure prevents a common instructional design failure in compliance contexts—treating assessment results as terminal outcomes rather than triggers for corrective action and system improvement.

ID / TITLE / TIME / MPI	OBJECTIVES ACTIVITIES ARTIFACTS	ASSESSMENT RUBRIC CODES FORMATIVE TARGET	A11Y/SEC MM VC THEORY CW
<p>3.1 What Counts as Defensible Evidence?</p> <p>60–90 min async</p> <p><i>MPI: Orientation & Activation</i></p>	<p>Lesson Objectives (support EO.M3): (LO.3.1) Classify 12 evidence examples as knowledge evidence, performance evidence, or compliance record — with rationale appropriate to a regulated workflow.</p> <p>Activities: Evidence sorting activity (12 items; some ambiguous). Critique of quiz-only compliance program: what does and does not constitute defensible evidence per NIST 800-53A? Update A-02 with evidence type refinements. Research anchor: Botha & Van der Merwe (2025), CW-33.</p> <p>Artifacts: A-02 updated · A-12 updated (VC-L)</p>	<p>Assessment: Sorted items: classification accuracy + rationale quality. Explanation of why attendance-only records fail RC-03.</p> <p>Rubric: RC-03, RC-11</p> <p>Formative: Misclassification patterns inform vILT 3.2 rubric design emphasis.</p>	<p>A11Y/SEC: A11Y-C · SEC-S</p> <p>MM: MM-W: 8-min captioned micro-lecture “Evidence quality: performance vs. completion vs. audit record”</p> <p>VC: VC-L: A-02 update logged; RC-11 metadata populated</p> <p>Theory: ECD; contrasting cases. Retrieval practice (Corral, 2025). Knowles: experience-as-resource — connect to prior assessment design experience.</p> <p>CW: CW-10, CW-33</p>
<p>3.2 vILT: Rubric Design and Remediation Pathway Engineering</p>	<p>Lesson Objectives (support EO.M3): (LO.3.2.1) Draft rubric criteria and performance thresholds for one compliance performance task. (LO.3.2.2) Define remediation pathway that generates evidence of correction — not re-</p>	<p>Assessment: Checkpoint: criteria observable and measurable, thresholds distinguish competence levels, remediation generates evidence of correction (not re-completion).</p>	<p>A11Y/SEC: A11Y-C (live captions); Accessible rubric template from P-04</p> <p>MM: MM-D: Screen-share on live rubric build in P-04 template (recorded, archived)</p>



ID / TITLE / TIME / MPI	OBJECTIVES ACTIVITIES ARTIFACTS	ASSESSMENT RUBRIC CODES FORMATIVE TARGET	A11Y/SEC MM VC THEORY CW
<p>90 min vILT</p> <p>MPI: Demonstration</p>	<p>completion.</p> <p>Activities: Instructor live rubric build with think-aloud (MM-D). Learner pairs build second rubric. Anchor calibration: score 3 sample responses live. Fairness check: language-neutral descriptors.</p> <p>Artifacts: A-07 draft v0.5 · A-12 updated (VC-L)</p>	<p>Rubric: RC-03, RC-09, RC-11</p> <p>Formative: Anchor calibration: instructor scores 3 samples; class compares and discusses discrepancies.</p>	<p>VC: VC-L: A-07 v0.5 committed; recording archived per A-12</p> <p>Theory: Criterion-referenced assessment. Calibration mirrors GAGAS inter-rater discipline (CW-05). Evidence of correction tied to 2 CFR 200.521 (CW-06).</p> <p>CW: CW-05, CW-06, CW-10, CW-32</p>
<p>3.3</p> <p>Job Aid Build – Performance Support at Point of Need</p> <p>60–90 min async</p> <p>MPI: Application</p>	<p>Lesson Objectives (support EO.M3): (LO.3.3) Produce A-06 v1 aligned to highest-risk steps in A-05; meets Revised 508 accessibility; includes CUI handling notice where applicable.</p> <p>Lesson Objectives (support EO.M3): Job aid design using P-04 template. Usability self-test: can a colleague locate correct step in ≤60 sec? Edge case check vs. A-05. TRADOC “job aid” product type alignment (CW-16).</p> <p>Artifacts: A-06 v1 (NARA naming); A-12 updated (VC-L/VC-A)</p>	<p>Assessment: Rubric: accuracy, alignment to A-05 high-risk steps, accessible design (RC-04), security notice where required (RC-06), point-of-need framing, metadata complete (RC-11).</p> <p>Rubric: RC-02, RC-03, RC-04, RC-11</p> <p>Formative: Peer time-to-use test: 2 peers locate correct step and report time and confusion points.</p>	<p>A11Y/SEC: A11Y-C · SEC-B (CUI disclaimer if job aid covers CUI-adjacent steps)</p> <p>MM: MM-S: Optional 2-min screencast demonstrating job aid use in context</p> <p>VC: VC-L/VC-A: A-06 v1 committed; A-12 note; accessibility self-check complete</p> <p>Theory: Performance support theory (Rosset & Schafer); CLT (reduce extraneous load at performance). TRADOC job aid product type (CW-16).</p> <p>CW: CW-01, CW-16</p>
<p>3.4</p> <p>Assessment Plan v1 – Aligned to Trace Matrix</p> <p>60–90 min async</p> <p>MPI: Integration</p>	<p>Lesson Objectives (support EO.M3): (LO.3.4) Produce A-07 v1: performance tasks, rubric criteria, pass/fail thresholds, remediation, evidence storage, explicit mapping to A-04 row numbers.</p> <p>Activities: Assessment blueprint using P-04 A-07 template. Row-by-row mapping: each criterion to specific A-04 row. Evidence storage design: location, retention period, access. PII check. Research anchors: Al Azawei (2025, CW-32); Botha & Van der Merwe (2025, CW-33).</p> <p>Artifacts: A-07 v1 · A-04 updated to v1.1 (cross-links to A-07) · A-12 updated (VC-L)</p>	<p>Assessment: Rubric: all criteria map to A-04 rows (RC-02), no attendance-only evidence (RC-03), remediation evidence specified, storage defined (RC-06), PII caution noted, metadata (RC-11).</p> <p>Rubric: RC-02, RC-03, RC-06, RC-07, RC-11</p> <p>Formative: Instructor alignment scan: each A-07 criterion links back to at least one A-04 row.</p>	<p>A11Y/SEC: A11Y-C · SEC-B (who sees assessment results; PII caution for score records)</p> <p>MM: None required</p> <p>VC: VC-L: A-07 v1 committed; A-04 updated to v1.1 with cross-links</p> <p>Theory: Validity by alignment (content validity); ECD evidence model. Kirkpatrick L2/L3 embedded in matrix structure.</p> <p>CW: CW-06, CW-10, CW-32, CW-33</p>
<p>3.5</p> <p>Exception Handling, Waivers, and CAPA Draft</p> <p>120–180 min async</p> <p>MPI: Synthesis</p>	<p>Lesson Objectives (support EO.M3): (LO.3.5.1) Design exception/waiver rule set: conditions, approval authority, documentation requirements. (LO.3.5.2) Draft A-15 v0.5 CAPA response to one simulated audit finding.</p> <p>Activities: Finding-response scenario drill: simulated audit finding (“completion records exist; performance evidence absent”). Management decision response per 2 CFR 200.521. Exception/waiver log design. Gate 3 self-audit.</p>	<p>Assessment: Rubric (A-15 draft): finding characterized, root cause plausible, corrective action specific and time-bound, verification evidence defined (not re-completion), timetable reasonable, metadata (RC-11).</p> <p>Rubric: RC-09, RC-10, RC-11</p> <p>Formative: Gate 3: A-06 passes peer time-to-use test; A-07 complete alignment map. Module 4 locked until gate passes.</p>	<p>A11Y/SEC: A11Y-C · SEC-S (no real incident details)</p> <p>MM: MM-S: “The finding arrived. You have 48 hours. What do you do?”</p> <p>VC: VC-L/VC-A: A-15 v0.5 committed; all RC-11 metadata populated</p> <p>Theory: DFARS deficiency process analogue; 2 CFR 200.521 management decision structure (CW-06). Stress inoculation via</p>



ID / TITLE / TIME / MPI	OBJECTIVES ACTIVITIES ARTIFACTS	ASSESSMENT RUBRIC CODES FORMATIVE TARGET	A11Y/SEC MM VC THEORY CW
	Artifacts: A-15 v0.5 (CAPA draft, NARA naming); A-12 updated (VC-L/VC-A). Gate 3 check.		realistic scenario framing. CW: CW-01, CW-05, CW-06

7.4. MODULE 4: QA/UAT, ACCESSIBILITY, SECURITY, AND LMS OPERATIONS

Module-level design intent: Module 4 integrates the operational infrastructure that allows training systems to function within regulated technical environments. The artifacts listed in the table (A-08 through A-11) introduce accessibility validation, QA/UAT testing, information security scoping, and LMS deployment architecture. These domains are often managed by separate teams in real organizations; the module intentionally combines them to show that audit-ready training systems require coordinated validation across accessibility, security, and operational platforms. The artifact set therefore emphasizes system boundaries and verification methods rather than instructional design decisions. Lesson 4.4 incorporates a mock 508 reviewer challenge session (vILT), in which learners present their A-08 Accessibility Validation Plan to a peer panel role-playing as a DCSA or agency accessibility review board — requiring oral defense of baseline choices, tester qualification decisions, and defect disposition rationale.

ATTRIBUTE	DETAIL
MPI PHASE	Integration
ARTIFACT TARGETS	A-08 Accessibility Validation Plan v1 (tester qualification REQUIRED) · A-09 Security Plan v1 (Privacy Act determination) · A-10 QA/UAT Plan v1 · A-11 LMS Deployment Plan v1 (cmi5/xAPI spec)
CW ANCHORS	CW-02, CW-04, CW-10, CW-12, CW-13, CW-19, CW-23, CW-24, CW-25, CW-26, CW-27, CW-28, CW-30, CW-35, CW-36
ACCEPTANCE GATE 4	A-08, A-09, A-10, A-11 all at v1, internally consistent, cross-referenced to A-04. A-08: Revised 508/WCAG 2.0 baseline stated (NOT WCAG 2.2 — hard fail); tester qualification field completed; A-11: cmi5/xAPI statement design spec present; all RC-11 metadata populated.
MODULE OBJECTIVE	EO.M4: Develop a QA/UAT plan with acceptance criteria, an accessibility validation plan specifying the correct 508/WCAG baseline, and an LMS deployment plan with audit-trail strategy.

Module-4 implementation nuance: Module 4 is designed as a validation pipeline where correctness and internal consistency matter more than completion. Learners often succeed in accessibility, security scoping, QA/UAT, or LMS deployment in isolation but fail audit readiness when the artifacts conflict (baseline mismatch, overclaimed CUI scope, unverifiable acceptance criteria, evidence outputs the LMS cannot export). Lessons 4.1–4.2 operate as a precision-and-calibration gate (Revised 508/WCAG 2.0, defensible boundary statements, test-object thinking). Lessons 4.3–4.5 then finalize A-08–A-11 as an integrated set with cross-references to A-04 and evidence outputs that are actually retrievable. Instructors should treat RC-04 and RC-06 as constraint drivers, not “compliance trivia.”



ID / TITLE / TIME / MPI	OBJECTIVES ACTIVITIES ARTIFACTS	ASSESSMENT RUBRIC CODES FORMATIVE TARGET	A11Y/SEC MM VC THEORY CW
<p>4.1 Baselines Without Overclaiming: 508, CUI, and the OIG Vignette</p> <p>60–90 min async</p> <p>MPI: Orientation & Activation</p>	<p>Lesson Objectives (support EO.M4): (LO.4.1.1) State correct 508 legal baseline (Revised 508/WCAG 2.0 — NOT WCAG 2.2). (LO.4.1.2) Write accurate CUI security boundary statement. (LO.4.1.3) Describe QA failures in DoD OIG DODIG-2025-056.</p> <p>Activities: 508 baseline drill (Access Board final rule + Section508.gov source exercise, CW-23/CW-24). NIST 800-171 CUI scoping exercise (CW-13). WCAG 2.2 vs. 2.0 distinction activity (CW-26). DoD OIG DODIG-2025-056 case reading: what QA controls failed? “Claim check” gate.</p> <p>Artifacts: A-08 outline · A-09 draft · A-12 updated (VC-L)</p>	<p>Assessment: Quiz + written scope statement: 508 baseline accuracy (RC-04 — hard fail if 508=WCAG 2.2), CUI scoping accuracy (RC-06), OIG case reflection, metadata (RC-11).</p> <p>Rubric: RC-04, RC-06, RC-11</p> <p>Formative: “Claim check” gate: submissions containing “508 = WCAG 2.2” returned without scoring.</p>	<p>A11Y/SEC: A11Y-C · All templates accessible · SEC-S</p> <p>MM: MM-W: 10-min captioned walkthrough of 508 → WCAG 2.0 reference chain</p> <p>VC: VC-L: A-08 outline and A-09 draft initiated in controlled FedRAMP-authorized repo</p> <p>Theory: Compliance literacy: precision in regulatory claims as professional competency. Case-based learning (CW-19, DoD OIG vignette).</p> <p>CW: CW-13, CW-19, CW-23, CW-24, CW-25, CW-26</p>
<p>4.2 vILT: Trusted Tester Validation and QA Object Design</p> <p>90 min vILT</p> <p>MPI: Demonstration</p>	<p>Lesson Objectives (support EO.M4): (LO.4.2.1) Define evidence outputs and tester qualification field for accessibility validation. (LO.4.2.2) Define QA acceptance criteria for one content type. (LO.4.2.3) Demonstrate cmi5 xAPI verb mapping for compliance evidence.</p> <p>Activities: Instructor demo: TT concept applied to sample eLearning (captioned video, form field, image with alt text) — MM-D. Live QA object mapping: “pass” means what evidence? Defect severity table calibration. Cmi5 xAPI verb overview (completed/passed/failed/experienced).</p> <p>Artifacts: A-08 draft updated · A-10 draft v0.5 · A-11 xAPI sketch · A-12 updated (VC-L)</p>	<p>Assessment: Checkpoint: test objects specific, evidence outputs defined, tester qualification field completed, defect severity calibrated, cmi5 verb mapping sketched.</p> <p>Rubric: RC-04, RC-05, RC-11</p> <p>Formative: Calibrated defect severity table produced collaboratively.</p>	<p>A11Y/SEC: A11Y-C (live captions); All checklists accessible before session</p> <p>MM: MM-D: Screen-share on accessibility scan + keyboard navigation test + cmi5 xAPI statement viewer (recorded, archived)</p> <p>VC: VC-L: A-10 v0.5, A-08 draft, A-11 xAPI sketch committed</p> <p>Theory: Assessment-object thinking (NIST 800-53A, CW-10). Standardized process training (CW-25). xAPI evidence architecture (CW-35, CW-36).</p> <p>CW: CW-10, CW-24, CW-25, CW-35, CW-36</p>
<p>4.3 QA/UAT Plan v1 – Acceptance Criteria and Defect Workflow</p> <p>60–90 min async</p> <p>MPI: Application</p>	<p>Lesson Objectives (support EO.M4): (LO.4.3) Produce A-10 v1: functional test cases, acceptance criteria, defect workflow (open/retest/close), trace links to A-04.</p> <p>Activities: QA/UAT plan build using P-04 A-10 template. Defect workflow design: triage, assignment, retest, close with evidence. Simulated UAT: learner self-tests one content object against own criteria.</p> <p>Artifacts: A-10 v1 (NARA naming); A-12 updated (VC-L/VC-A)</p>	<p>Assessment: Rubric: acceptance criteria observable (RC-05), test cases cover all content types, defect workflow complete with evidence at each stage, trace links accurate (RC-02), metadata (RC-11).</p> <p>Rubric: RC-05, RC-09, RC-11</p> <p>Formative: UAT dry-run self-audit: learner reports one defect found and its classification.</p>	<p>A11Y/SEC: A11Y-C · SEC-S (no production LMS for learner testing)</p> <p>MM: None required</p> <p>VC: VC-L/VC-A: A-10 v1 committed; release note: acceptance criteria and defect workflow defined</p> <p>Theory: QMS rehearsal; test-driven design (define acceptance before building). GAGAS QM documentation (CW-05).</p> <p>CW: CW-05, CW-10, CW-19</p>
<p>4.4 Accessibility Validation Plan v1 – Baseline,</p>	<p>Lesson Objectives (support EO.M4): (LO.4.4) Produce A-08 v1: Revised 508/WCAG 2.0 baseline, TT-aligned method, tester qualification field (REQUIRED), content type mapping, evidence</p>	<p>Assessment: Rubric: correct baseline (WCAG 2.0 via Revised 508 — hard fail if 2.2) — RC-04. TT</p>	<p>A11Y/SEC: A11Y-P (this artifact governs its own domain); SEC-S</p> <p>MM: Link to current TT process at Section508.gov (verify version at delivery)</p>



ID / TITLE / TIME / MPI	OBJECTIVES ACTIVITIES ARTIFACTS	ASSESSMENT RUBRIC CODES FORMATIVE TARGET	A11Y/SEC MM VC THEORY CW
<p>Method, Tester Qualification</p> <p>60–90 min async</p> <p>MPI: Integration</p>	<p>outputs, defect disposition, release gate.</p> <p>Activities: A-08 full build using P-04 template. Content type mapping: which validation method per object? Tester qualification: is validator certified? Defect disposition: document-and-close vs. document-and-accept with rationale. WCAG 2.2 aspirational-only notation.</p> <p>Artifacts: A-08 v1 · A-12 updated (VC-L/VC-A)</p>	<p>method specified. Tester qualification completed. Evidence outputs complete. Metadata (RC-11).</p> <p>Rubric: RC-04, RC-11</p> <p>Formative: Peer review using A-08 checklist: confirm baseline, method, tester role, evidence outputs.</p>	<p>VC: VC-L/VC-A: A-08 v1 committed; note: WCAG 2.0 baseline, TT-aligned, tester qualification complete</p> <p>Theory: Accessibility as operational quality, not UX enhancement. DHS TT program (CW-25). WCAG 2.2 boundary (CW-26).</p> <p>CW: CW-23, CW-24, CW-25, CW-26</p>
<p>4.5 LMS Deployment, xAPI/cmi5 Spec, Security Plan, and Evidence Export</p> <p>120–180 min async</p> <p>MPI: Synthesis</p>	<p>Lesson Objectives (support EO.M4): (LO.4.5.1) Produce A-11 v1: cmi5 packaging spec, upload/testing, versioning, reporting outputs, xAPI statement design, LRS retention alignment to FAR 4.703. (LO.4.5.2) Produce A-09 v1: accurate CUI scope, Privacy Act determination, storage, access roles, sanitization.</p> <p>Activities: LMS simulation worksheet: trace content object through cmi5 packaging → upload → testing → xAPI statement verification → reporting → evidence export → archive. A-09 finalization with Privacy Act determination. Gate 4 self-audit.</p> <p>Artifacts: A-11 v1 · A-09 v1 (NARA naming); A-12 updated (VC-L/VC-A). Gate 4 check.</p>	<p>Assessment: Rubric (A-11): cmi5 packaging spec present (RC-07), xAPI statement design spec present (RC-08), versioning described, reporting outputs defined (learner ID/date/score minimum), LRS retention FAR-aligned. Rubric (A-09): CUI scope accurate, Privacy Act determination, storage/access defined, sanitization (RC-06). All metadata (RC-11).</p> <p>Rubric: RC-06, RC-07, RC-08, RC-11</p> <p>Formative: Gate 4: instructor reviews internal consistency across A-08, A-09, A-10, A-11 before releasing Module 5.</p>	<p>A11Y/SEC: A11Y-C · SEC-B (access roles, encryption per CW-13 scoping)</p> <p>MM: MM-S: “LMS Release Checklist — What must be right before you publish (cmi5 + xAPI edition)”</p> <p>VC: VC-L/VC-A: All four v1 artifacts committed; A-12 final entries for all Module 4 artifacts</p> <p>Theory: QM pipeline logic; CM principles (CW-27, CW-28). Log management guidance (CW-12). xAPI evidence architecture (CW-35, CW-36).</p> <p>CW: CW-02, CW-04, CW-12, CW-13, CW-30, CW-35, CW-36</p>

7.5. MODULE 5: GOVERNANCE, MONITORING, AND AUDIT DEFENSE

Module-level design intent: Module 5 synthesizes all artifacts into a governance and monitoring architecture capable of sustaining audit readiness over time. The artifacts listed here extend beyond instructional design outputs to include records management (A-13), monitoring systems (A-14), corrective action mechanisms (A-15), governance structures (A-16), and the final audit evidence package (A-17). This module therefore models the lifecycle responsibilities associated with training systems after deployment, demonstrating that compliance training must function as a continuously governed operational system rather than a completed instructional product.

ATTRIBUTE	DETAIL
MPI PHASE	Synthesis & Capstone
ARTIFACT TARGETS	A-13 Records Retention Plan v1; A-14 CI and Monitoring Plan v1 (trigger-based); A-15 CAPA v1; A-16 Governance and RACI v1; A-17 Audit Response Packet (final); complete A-01–A-17 integrated bundle



ATTRIBUTE	DETAIL
CW ANCHORS	CW-02, CW-03, CW-04, CW-05, CW-06, CW-08, CW-09, CW-14, CW-17, CW-18, CW-19, CW-20, CW-21, CW-27, CW-28, CW-29, CW-31, CW-36, CW-37, CW-38
ACCEPTANCE GATE 5 (CAPSTONE)	All 17 artifacts at final version in A-12 with NARA naming; A-17 complete and indexed; timed audit defense ≤10 min; no unsupported claims; records naming per A-13; tester qualification field in A-08; cmi5/xAPI spec in A-11; portfolio abstract submitted; All RC-11 metadata fields populated across all artifacts
MODULE OBJECTIVE	EO.M5: Produce a governance and RACI plan, records retention and evidence availability plan, continuous improvement and CAPA plan, and a fully indexed audit response packet that can be retrieved and presented within a timed defense.

Module-5 implementation nuance: The lesson structure is designed to progressively shift learners from design activities to operational defense scenarios. Lessons 5.1–5.3 establish governance and records frameworks, while Lessons 5.4–5.5 simulate audit-response conditions requiring rapid evidence retrieval and explanation. The timed defense exercise is intentionally positioned late in the module so that learners experience the operational pressure of audit interactions only after constructing a complete evidence architecture.

ID / TITLE / TIME / MPI	OBJECTIVES ACTIVITIES ARTIFACTS	ASSESSMENT RUBRIC CODES FORMATIVE TARGET	A11Y/SEC MM VC THEORY CW
5.1 Governance Architecture – RACI, Triggers, and Review Cadence <i>60–90 min async</i> <i>MPI: Orientation & Activation</i>	<p>Lesson Objectives (support EO.M5): (LO.5.1) Produce A-16 v1: specific owner/approver roles, trigger-based review cadence, RACI covering full lifecycle, EIA-649-1A baseline management framing (CW-28).</p> <p>Activities: Governance pattern library review (4 federal contract examples). RACI matrix build. Trigger table design per TRADOC TR 350-70 (CW-17): regulatory change, contract modification, evaluation findings, post-audit. RACI cross-check vs. A-09 access control roles. ISO 10006 QM project governance framing (CW-29).</p> <p>Artifacts: A-16 v1 (NARA naming); A-12 updated (VC-L/VC-R)</p>	<p>Assessment: Rubric: owner/approver roles specific (RC-09), trigger-based cadence not calendar-only (RC-09), RACI covers lifecycle, trigger table present (RC-07), metadata (RC-11).</p> <p>Rubric: RC-09, RC-10, RC-11</p> <p>Formative: Instructor spot-check: A-16 owner definitions consistent with A-09 access control roles.</p>	<p>A11Y/SEC: A11Y-C · RACI table accessible · SEC-B (security roles in A-16 align with A-09)</p> <p>MM: None required</p> <p>VC: VC-L/VC-R: A-16 v1 committed; RACI signoff checkpoint recorded</p> <p>Theory: Change management; RMF lifecycle (CW-30). TRADOC TR 350-70 trigger model (CW-17). ISO 10006 QM in projects (CW-29). EIA-649-1A CM (CW-28).</p> <p>CW: CW-03, CW-08, CW-17, CW-28, CW-29</p>
5.2 vILT: The 10-Minute Audit Request – Timed Evidence Defense <i>90 min vILT</i> <i>MPI: Demonstration</i>	<p>Lesson Objectives (support EO.M5): (LO.5.2.1) Retrieve and present required evidence artifacts within ≤10 minutes. (LO.5.2.2) Respond to ≥3 reviewer questions with cited, self-contained answers – no tribal knowledge.</p> <p>Activities: Timed defense: learner presents A-17 outline and retrieves 2 specified artifacts ≤10 min. Instructor and peers play reviewer roles. Q&A bank: “Where is the evidence this objective was assessed?” / “Show me your retention basis.” / “Where is the accessibility validation log?” / “Which cmi5 Aus have completion evidence in the LRS?” Post-defense debrief.</p>	<p>Assessment: Scored defense: retrieval ≤10 min (RC-08), evidence cross-references A-04 (RC-02), answers cite artifact or clause (RC-01, RC-10), no tribal knowledge, metadata complete (RC-11).</p> <p>Rubric: RC-01, RC-02, RC-08, RC-10, RC-11</p> <p>Formative: Gate rehearsal: instructor identifies artifact gaps or unsupported claims</p>	<p>A11Y/SEC: A11Y-C (live captions); Presentation materials accessible; Timed format disclosed in advance</p> <p>MM: MM-D: Screen-share + timed clock display. Optional recording with consent.</p> <p>VC: VC-L: Defense feedback captured as change requests in A-12 before Gate 5</p> <p>Theory: Stress inoculation; authentic assessment under constraint. Mirrors real audit conditions (CW-06). Knowles self-evaluation principle.</p> <p>CW: CW-06, CW-09, CW-14</p>



ID / TITLE / TIME / MPI	OBJECTIVES ACTIVITIES ARTIFACTS	ASSESSMENT RUBRIC CODES FORMATIVE TARGET	A11Y/SEC MM VC THEORY CW
	Artifacts: A-17 draft updated with defense feedback · A-12 updated (VC-L)	before capstone submission.	
5.3 Records Retention Plan v1 – Naming Conventions and Availability Architecture <i>60–90 min async</i> <i>MPI: Application</i>	Lesson Objectives (support EO.M5): (LO.5.3) Produce A-13 v1: retention basis by clause (FAR 4.7 or equivalent), NARA naming guidance, metadata checklist, electronic audit trail, xAPI/LRS retention period aligned to FAR 4.703, retrieval index. Activities: Records taxonomy: map all 17 A-xx artifacts to retention basis (by clause), naming convention, storage location. xAPI statement retention period design (CW-36). “10-minute index” design and test. CMMC phase change as records trigger (CW-20). Artifacts: A-13 v1 (NARA naming); A-12 updated (VC-L/VC-A)	Assessment: Rubric: retention basis cites specific clause (RC-08 – hard fail if no source), NARA naming present (RC-07), xAPI retention aligned to FAR 4.703 (RC-08), metadata (RC-11), index navigable (RC-10). Rubric: RC-07, RC-08, RC-10, RC-11 Formative: Peer retrieval test: peer locates 3 specified artifacts in A-13 index.	A11Y/SEC: A11Y-C · SEC-B (storage locations and access roles defined) MM: None required VC: VC-L/VC-A: A-13 v1 committed; release note: NARA naming, metadata checklist, xAPI retention, index complete Theory: Records-as-control (FAR 4.7); NARA Curriculum 2.0 lifecycle (CW-18). xAPI evidence retention as audit trail (CW-36). CW: CW-02, CW-04, CW-18, CW-36, CW-38
5.4 Monitoring, CAPA, and the Audit-the-Auditors Vignette <i>60–90 min async</i> <i>MPI: Integration</i>	Lesson Objectives (support EO.M5): (LO.5.4.1) Produce A-14 v1: evaluation metrics, trigger-based monitoring cadence, remediation loop, CMMC phase-change trigger (CW-20). (LO.5.4.2) Finalize A-15 v1: complete CAPA with verification-of-correction evidence. Activities: Metrics selection exercise. Trigger table design: regulatory change, CW-20 phase update, evaluation findings, post-audit. DoD OIG DODIG-2025-056 vignette (CW-19): what monitoring and governance controls failed? ISO 10006 QM analogue (CW-29). Gate 5 readiness check. Artifacts: A-14 v1 · A-15 v1 (finalized); A-12 updated (VC-L/VC-A)	Assessment: Rubric (A-14): metrics specific (RC-09), trigger table uses real triggers not calendar-only (RC-07), remediation loop complete. Rubric (A-15): CAPA entries complete with verification evidence, metadata (RC-11). Rubric: RC-09, RC-11 Formative: Final readiness check: all artifacts at final version before capstone.	A11Y/SEC: A11Y-C · SEC-S MM: MM-S: DoD OIG DODIG-2025-056 discussion scenario – “What governance controls would have caught this?” VC: VC-L/VC-A: A-14 v1 and A-15 v1 committed; A-12 entries complete Theory: QMS logic (GAO Yellow Book, CW-05). Trigger-based review (CW-17). Case-based learning (CW-19). ISO 10006 (CW-29). CW: CW-05, CW-17, CW-19, CW-20, CW-29, CW-37
5.5 Integrated Capstone Package and Portfolio Abstract <i>120–180 min async</i> <i>MPI: Synthesis (Capstone)</i>	Lesson Objectives (support EO.M5): (LO.5.5.1) Submit complete integrated audit packet (A-01–A-17, all final, all in A-12, all in A-17 index). (LO.5.5.2) Produce 1-page portfolio abstract for program lead audience. (LO.5.5.3) Gate 5 submission. Activities: Final assembly: A-17 index complete; all A-12 entries match artifact versions; NARA naming verified across all artifacts. Claim check: scan all artifacts for unsupported compliance claims, WCAG 2.2 references, universal CUI scope overclaiming, blank metadata fields. Portfolio abstract drafting. Gate 5 self-audit checklist. Artifacts: A-01–A-17 final bundle · A-17 final · Portfolio abstract (1 page) · A-12 final version log	Assessment: Capstone rubric (Section 8): 106 points across 11 RC dimensions. All hard fail conditions checked. Gate 5 acceptance checklist. Rubric: RC-01 through RC-11 Formative: Gate 5: all hard fail conditions verified before instructor grades.	A11Y/SEC: A11Y-C · SEC-S · Optional: recorded 5-min portfolio walkthrough MM: MM-D: Optional recorded walkthrough for portfolio submission context VC: VC-L/VC-A/VC-R: All artifacts final; A-12 complete; RACI signoff for course completion Theory: Transfer artifact design; self-explanation effect. Portfolio as professional evidence: the course models its own thesis. CW: CW-01 through CW-38 (all CW anchors present across capstone artifact set)



7.6. MASTER LESSON INVENTORY (ALL 25 LESSONS)

The following table provides a consolidated inventory of all 25 lessons across the five-module course. Each lesson is identified by code, module, title, estimated learner engagement time, MPI phase, primary artifact output(s), and primary CW anchors. This inventory supplements the full module specifications in Sections 7.1–7.5 and supports rapid cross-referencing for instructors, program administrators, QA reviewers, and IDs conducting traceability audits. Lessons producing no standalone artifact (e.g., diagnostic or vILT demonstration lessons) are noted accordingly; all such lessons contribute evidence feeds to subsequent artifact-production lessons.

(L. = Lesson; M. = Module; EST.=Estimated time; CW=Primary crosswalk anchors)

L.	M.	LESSON TITLE	EST.	MPI PHASE	PRIMARY ARTIFACT	2° / FEED	CW
1.1	M1	Auditor Questions First: Training as Control vs. Content	60–90 min	Orientation & Activation	None (diagnostic framing; feeds A-01 v0.1 draft)	A-01 v0.1 draft	CW-01, CW-09
1.2	M1	vILT: Requirement → Evidence Chain – Live Construction	90 min (vILT)	Demonstration	Evidence claim chain draft (feeds A-01)	A-01	CW-01, CW-09, CW-21
1.3	M1	Evidence Brief v1 – Scope, Constraints, Evidence Outputs	60–90 min	Application	A-01 v1.0	A-12 (log entry)	CW-01, CW-09, CW-21
1.4	M1	Peer Review Calibration – Applying the Audit Lens	60–90 min	Integration	Peer review record (feeds A-12)	A-12	CW-01, CW-09
1.5	M1	Risk Register + Non-Training Controls Map	120–180 min	Synthesis	A-03 v1.0	A-12	CW-01, CW-09, CW-21
2.1	M2	Traceability Gaps That Trigger Findings	60–90 min	Orientation & Activation	None (gap analysis diagnostic; feeds A-04)	A-04	CW-03, CW-08, CW-09
2.2	M2	vILT: Live Trace Matrix Build – Requirement to Verification Object	90 min (vILT)	Demonstration	Draft trace rows (5 rows; feeds A-04)	A-04	CW-03, CW-08, CW-13
2.3	M2	Traceability Matrix v1 – Independent Build	60–90 min	Application	A-04 v1.0	A-12	CW-03, CW-08, CW-13
2.4	M2	Workflow Decomposition and Edge Case Documentation	60–90 min	Integration	A-05 v1.0	A-12	CW-16, CW-17, CW-18
2.5	M2	Evidence Packaging, Records Logic, and Retrieval Architecture	120–180 min	Synthesis	A-13 outline (v0.1; finalized in Lesson 5.3)	A-12	CW-02, CW-21
3.1	M3	What Counts as Defensible Evidence?	60–90 min	Orientation & Activation	None (classification exercise; feeds A-06, A-07)	A-06	CW-08, CW-09
3.2	M3	vILT: Rubric Design and Remediation Pathway Engineering	90 min (vILT)	Demonstration	Rubric draft (feeds A-07)	A-07	CW-09, CW-16
3.3	M3	Job Aid Build – Performance Support at Point of Need	60–90 min	Application	A-06 v1.0	A-12	CW-26, CW-27
3.4	M3	Assessment Plan v1 – Aligned to Trace Matrix	60–90 min	Integration	A-07 v1.0	A-12	CW-08, CW-09
3.5	M3	Exception Handling, Waivers, and CAPA Draft	120–180 min	Synthesis	A-15 draft	A-12	CW-01, CW-09, CW-23
4.1	M4	Baselines Without Overclaiming: 508, CUI, and the OIG Vignette	60–90 min	Orientation & Activation	None (scope analysis diagnostic; feeds A-08, A-09)	A-08, A-09	CW-13, CW-26, CW-27



L.	M.	LESSON TITLE	EST.	MPI PHASE	PRIMARY ARTIFACT	2° / FEED	CW
4.2	M4	vILT: Trusted Tester Validation and QA Object Design	90 min (vILT)	Demonstration	Validation plan draft (feeds A-08)	A-08	CW-26, CW-27
4.3	M4	QA/UAT Plan v1 – Acceptance Criteria and Defect Workflow	60–90 min	Application	A-10 v1.0	A-12	CW-09, CW-23
4.4	M4	Accessibility Validation Plan v1 – Baseline, Method, Tester Qualification	60–90 min	Integration	A-08 v1.0	A-12	CW-26, CW-27
4.5	M4	LMS Deployment, xAPI/cmi5 Spec, Security Plan, and Evidence Export	120–180 min	Synthesis	A-09 v1.0; A-11 v1.0	A-12	CW-11, CW-13, CW-15
5.1	M5	Governance Architecture – RACI, Triggers, and Review Cadence	60–90 min	Orientation & Activation	A-16 v1.0	A-12	CW-01, CW-09, CW-23
5.2	M5	vILT: The 10-Minute Audit Request – Timed Evidence Defense	90 min (vILT)	Demonstration	None (timed simulation; feeds A-12 debrief)	A-12	CW-01, CW-03, CW-09
5.3	M5	Records Retention Plan v1 – Naming Conventions and Availability Architecture	60–90 min	Application	**A-13 v1.0** (final; supersedes Lesson 2.5 outline)	A-12	CW-02, CW-21
5.4	M5	Monitoring, CAPA, and the Audit-the-Auditors Vignette	60–90 min	Integration	A-14 v1.0	A-12	CW-09, CW-23, CW-36
5.5	M5	Integrated Capstone Package and Portfolio Abstract	120–180 min	Synthesis (Capstone)	**A-17** (complete integrated audit packet: A-01 through A-16, all final, indexed in A-17)	–	All CW

Table 7.0-A: Master Lesson Inventory. Bold artifact IDs indicate the primary production artifact for that lesson (submitted for gate or capstone review). Non-bold artifact entries indicate diagnostic contributions or feeds to artifacts produced in later lessons. Time estimates reflect the intensive (accelerated) track; the standard track provides additional time within each module for revision cycles. A-12 (Change Log) receives entries from every lesson with a production or review output. CW anchors shown are primary anchors; full crosswalk coverage per module is detailed in Sections 7.1–7.5.



SECTION 8: ASSESSMENT AND EVIDENCE SYSTEM

8.1. ASSESSMENT PHILOSOPHY

This course uses no completion-only assessments. Consistent with NIST SP 800-53A’s explicit rejection of checklist-only control verification, every graded activity produces a tangible evidence artifact that could be presented to a reviewer as documentation of demonstrated competency. This design choice is not incidental — it is the course’s thesis operationalized in a demonstration requirement: if you cannot demonstrate competency and the use of evidence, you are not prepared for the professional domain.

8.2. ACCEPTANCE GATE SUMMARY

(MOD.=Module):

GATE	MOD.	PASS CONDITION	HARD FAIL CONDITION
G-1	End of M1	A-01 v1.1 scoped, at least one clause cited (RC-01); evidence outputs behavior-based (RC-03); A-03 v1 with ≥2 non-training controls; A-12 initiated with NARA naming and author/date metadata; all RC-11 metadata populated.	Unsupported compliance claim in A-01; A-12 absent or missing author/date; any RC-11 metadata field blank.
G-2	End of M2	A-04 v1: ≥15 rows, all columns, no attendance-only evidence, scope statement, retention/index field, NARA naming (RC-02, RC-08). A-05 v1 with edge cases. All RC-11 metadata populated.	A-04 rows use attendance/completion as sole evidence; any RC-11 metadata field blank.
G-3	End of M3	A-06 v1 passes peer time-to-use test (≤60 sec, 2 reviewers). A-07 v1 all criteria mapped to A-04 rows, non-attendance evidence specified (RC-03, RC-09). All RC-11 metadata populated.	A-07 contains attendance-only evidence; A-06 fails usability test; any RC-11 metadata field blank.
G-4	End of M4	A-08, A-09, A-10, A-11 all at v1, internally consistent, cross-referenced to A-04. A-08: Revised 508/WCAG 2.0 baseline; tester qualification field completed. A-11: cmi5/xAPI statement design spec present. All RC-11 metadata populated.	A-08 claims 508 = WCAG 2.2 (immediate hard fail). Tester qualification field blank. Cmi5/xAPI spec absent from A-11. Any RC-11 metadata field blank.
G-5	End of M5	All 17 artifacts at final version in A-12 with NARA naming; A-17 complete and indexed; timed audit defense ≤10 min; no unsupported claims; portfolio abstract submitted.	Any artifact claims 508=WCAG 2.2; universal CUI scope without statement; A-12 missing author/date; retention period without cited authority; A-08 tester qualification blank; any controlled artifact missing metadata (RC-11).

For A-17 capstone submission, the integrative RC scoring reference is provided in Addendum D, D.17, Table 3. Instructors completing DP-06 should use Table 3 in conjunction with the gate history in Table 1 and the submission checklist in Table 2.

HARD FAIL CONDITIONS:

Automatic capstone non-acceptance regardless of overall rubric score: (1) Any artifact claims Section 508 = WCAG 2.2 as legal baseline. (2) Any artifact claims universal CUI scope without applicable scope statement. (3) A-12 Version Log absent or entries missing author/date metadata. (4) A-17 Audit Response Packet not retrievable within 10 minutes. (5) Any artifact asserts retention period without citing applicable authority. (6) A-08 tester qualification field blank. (7) Any controlled artifact (A-xx or P-xx) missing author, date, or version metadata (RC-11).



8.3. CAPSTONE RUBRIC (106 POINTS; RC-01 TO RC-11 | SCORE 0–4 PER CRITERION)

Auditors do not evaluate artifacts on a scale of technically passable vs demonstrably strong, but rather as non-compliant, partially or weakly compliant, compliant, and robust/defensible/low risk. These four levels are mirrored in the table below, where:

- Score level 1: Non-compliant / finding likely
- Score level 2: Weak / deficiency risk
- Score level 3: Compliant (would pass audit)
- Score level 4: Defensible / exemplary (audit-robust)

Failure modes are those with scores below 3:

(PTS=Max points):

RC	CRITERION	PTS	NON-COMPLIANT (S=1)	DEFICIENT / PARTIAL (S=2)	COMPLIANT (AUDIT PASS) (S=3)	DEFENSIBLE / EXEMPLARY (S=4)
			FAILURE MODES (HARD FAIL)	TRAINER DISCRETION	PASSING CRITERIA	
RC-01	Clause / standard fidelity	20	Compliance claims incorrect, outdated, or unsupported; regulatory sources missing or misinterpreted.	Sources cited but partially incorrect, outdated, or over-scoped; claims may exceed regulatory scope.	Compliance claims correctly cite applicable clause or standard; scope accurate; no unsupported claims.	Claims precisely scoped; assumptions dated; clause interpretation explicit; regulatory boundaries clearly articulated.
RC-02	Traceability integrity	15	No consistent requirement→evidence chain; learning activities disconnected from compliance requirement.	Partial chain present but gaps exist (missing assessment link, evidence artifact, or indexing).	Complete requirement → objective → activity → assessment → artifact → retention chain documented.	Traceability fully documented including edge cases, exception paths, and retrieval indexing.
RC-03	Evidence verifiability	15	Assessment produces no verifiable evidence; completion or attendance used as sole evidence.	Assessment produces evidence but not behavior-based or not clearly linked to performance requirement.	Assessment evidence behavior-based and falsifiable; remediation produces documented correction evidence.	Evidence architecture robust; multiple verification objects defined; remediation loop explicitly tied to control improvement.
RC-04	Accessibility baseline correctness	15	Accessibility requirements incorrect or missing; WCAG baseline misrepresented.	Accessibility addressed but baseline partially incorrect or testing method unclear.	Revised 508 baseline stated correctly; WCAG 2.0 A/AA referenced; validation method defined.	TT-aligned validation workflow specified; tester qualification documented; accessibility defects tracked through QA workflow.
RC-05	QA / UAT verification objects	10	QA process absent or purely informal; no acceptance criteria.	QA process described but criteria vague or not testable.	QA/UAT test cases defined; acceptance criteria observable; defect workflow documented.	QA workflow robust; verification objects mapped to trace matrix; defect lifecycle documented with evidence of closure.
RC-06	Security / data scope accuracy	10	CUI/PII scope incorrect or ignored; security controls undefined.	Security scope partially defined but	CUI/PII boundary correctly scoped;	Security plan includes sanitization, access roles, storage



RC	CRITERION	PTS	NON-COMPLIANT (S=1)	DEFICIENT / PARTIAL (S=2)	COMPLIANT (AUDIT PASS) (S=3)	DEFENSIBLE / EXEMPLARY (S=4)
RC-07	Versioning and change log integrity	5	Version history missing; document control absent.	incomplete or overclaimed. Version log present but incomplete; rationale or authorship missing.	storage and access controls defined. Version log maintained with author, date, version number, and change description.	architecture, and explicit regulatory scope boundaries. Configuration management discipline evident; release notes, archival logic, and approval records included.
RC-08	Records retention and retrieval	5	Retention basis missing; evidence cannot be retrieved reliably.	Retention policy partially defined but lacks indexing or clause reference.	Retention basis cites clause; index allows retrieval of artifacts; storage defined.	Retrieval architecture optimized; 10-minute retrieval achievable; metadata and naming fully standardized.
RC-09	Governance, monitoring, CAPA realism	4	Governance roles undefined; monitoring absent.	Governance present but responsibilities unclear or monitoring purely calendar-based.	RACI roles defined; monitoring cadence specified; CAPA workflow documented.	Governance system robust; trigger-based monitoring; CAPA includes verification-of-correction evidence.
RC-10	Reviewer-legible writing	4	Narrative unclear; relies on tribal knowledge or undocumented assumptions.	Narrative understandable but lacks clarity or supporting explanation.	Narrative self-contained and understandable by external reviewer.	Narrative explicitly anticipates reviewer questions; assumptions dated and fully justified.
RC-11	Artifact metadata completeness	3	Metadata missing from controlled documents.	Metadata partially complete or inconsistent.	Required metadata fields present (author, date, version, approval).	Metadata standardized across all artifacts; document control system clearly operational.

Minimum passing score: 70/106; No hard-fail conditions triggered;

Hard-fail triggers:

- Any score of 1 in the rubric above
- Claims Section 508 = WCAG 2.2 as legal baseline.
- Claims universal CUI scope without applicable scope statement.
- A-12 Version Log absent or entries missing author/date metadata.
- A-17 Audit Response Packet not retrievable within 10 minutes.
- Any artifact asserts retention period without citing applicable authority.
- A-08 tester qualification field blank.
- Any controlled artifact (A-xx or P-xx) missing author, date, or version metadata (RC-11).
- Any RC-04 score = 1 (incorrect accessibility baseline)
- Any RC-01 unsupported compliance claim

8.4. FORMATIVE ASSESSMENT RUBRICS

The capstone rubric in Section 8.3 governs final acceptance. Two formative instruments support ongoing feedback, peer calibration, and module-gate readiness decisions throughout the course: (1) the Peer Review Calibration Rubric (PR-01 to PR-05), provided in full in Section 8.6 below; and (2) the Module Gate Readiness Checklist (Instructor Use), provided



in Section 8.7 below. Both instruments use subsets of the RC code library and are calibrated for formative (developmental) rather than summative (certification) use. Scores on formative rubrics do not directly translate to capstone scores; they inform the revision cycles documented in A-12 and provide instructors with early signals of traceability, scope, and document control weaknesses before they propagate to the capstone. NOTE ON SECTION ORDER: The summative evaluation framework (Section 8.5, Kirkpatrick Levels 1–4) is positioned immediately below for structural continuity within the Section 8 assessment architecture; the formative rubric instruments themselves follow in Sections 8.6 and 8.7.

8.5. SUMMATIVE OUTCOME EVALUATION FRAMEWORK (KIRKPATRICK LEVELS 1–4)

The formative instruments in Section 8.4 (Peer Review Calibration Rubric, Section 8.6; Module Gate Readiness Checklist, Section 8.7) address Kirkpatrick Levels 1 (Reaction, via peer review feedback loops) and 2 (Learning, via RC-01–RC-11 rubric scoring and gate acceptance records). This section provides a complete four-level evaluation framework using the New World Kirkpatrick Model (Kirkpatrick & Kirkpatrick, 2016), which emphasizes outcome causation chains and leading indicators. Levels 1 and 2 rows cross-reference the existing formative instruments; Levels 3 and 4 specify post-completion follow-up mechanisms required for comprehensive evaluation documentation. All four levels are included because a complete Kirkpatrick framework is both more defensible in audit and more useful to the program: Levels 3–4 data inform curriculum improvements that Levels 1–2 data alone cannot reveal. Level 4 results data requires voluntary learner participation and is advisory; it does not impose reporting obligations on learners or their employers.

LEVEL	EVALUATION QUESTION	METHOD	TIMELINE
LVL. 1 (REACTION)	Did learners find the instruction relevant to their professional contexts? Were artifact formats and gate structures perceived as operationally credible?	End-of-course satisfaction survey (P-09 instrument): 5-point Likert items on relevance, credibility, artifact utility, and feedback quality. Deployed in LMS within 24 hours of DP-06 acceptance.	Immediately post-completion (within 24 hrs of DP-06). Results compiled per cohort; reviewed against P-09 threshold (mean $\geq 4.0/5.0$). Persistent below-threshold results trigger content review.
LVL. 2 (LEARNING)	Did learners demonstrate acquisition of target competencies: regulatory translation, evidence chain design, artifact production, and governance architecture?	Primary: RC rubric scoring (RC-01–RC-11) on A-17 capstone (Section 8.3). Secondary: gate acceptance record (Gates 1–5) as progressive skill evidence. Both instruments are embedded in the production arc.	Gates 1–5 (formative, ongoing). A-17 capstone at course close. Aggregate RC scores compiled per cohort. Minimum acceptable cohort average: RC ≥ 3.0 across all 11 criteria. Below-standard triggers instructor calibration review.
LVL. 3 (BEHAVIOR)	Did learners apply training system design and governance competencies in their professional contexts after completion?	90-day follow-up: (1) Learner self-report survey (P-09 transfer module)— 5 items on artifact application, regulatory crosswalk use, and compliance design decisions since completion. (2) Supervisor attestation form (optional, employed learners): structured checklist of observed practices. Sent via LMS auto-message.	90 days post-DP-06. Target response rate: $\geq 60\%$ of cohort. Results reviewed annually in aggregate. Transfer rate $< 40\%$ reporting applied use triggers curriculum/scaffolding review, especially for A-06 job aid and A-14 monitoring plan coverage.
LVL. 4 (RESULTS)	Are organizations where graduates operate showing measurable improvements in audit-ready training posture? Are training-related compliance findings trending downward?	Longitudinal outcome tracking (voluntary): (1) Learner-reported audit outcomes at 6-month and 12-month follow-up (P-09 longitudinal module): DCAA findings, open CAPA items, training-related deficiencies. (2) Aggregate de-identified self-report on	6 and 12 months post-completion. Aggregated across cohorts annually. Positive result threshold: $\geq 70\%$ of responding learners report no training-related audit findings in reporting period. Persistent negative results trigger consultation with



LEVEL	EVALUATION QUESTION	METHOD	TIMELINE
		whether artifacts were tested in audit conditions. NOTE: Level 4 data is advisory; not a completion requirement.	program compliance lead and regulatory currency review of A-02.

8.6. PEER REVIEW CALIBRATION RUBRIC — FORMATIVE INSTRUMENT 1 OF 2 (PR-01 TO PR-05)

Applied at each peer review cycle (see Section 9 for review scheduling). Reviewers score the assigned artifact on five criteria drawn from the RC library. The scale is a simplified 3-level range calibrated for peer-level assessment. Written comments of at least two sentences are required for any criterion scored 1. A score of 1 on PR-01 (Regulatory Anchor) or PR-03 (Scope Accuracy) triggers an automatic instructor review flag before the artifact may advance.

(RC=Rubric criteria):

PR#	CRITERION	RC	NOT YET (1)	PROGRESSING (2)	MEETS EXPECTATION (3)
PR-01	Regulatory Anchor Present and Accurate	RC-01	No clause cited; or clause cited without operational translation; or clause cited inaccurately	Clause cited; operational translation present but incomplete or imprecise	Clause correctly cited by ID/title; operationally translated to a verifiable training system requirement
PR-02	Evidence Artifact Linkage	RC-02	No artifact identified; or artifact named without evidence-production rationale	Artifact identified and named; evidence logic stated but incomplete	Artifact linked to the regulatory requirement with a clear and complete evidence-production rationale
PR-03	Scope Statement Accuracy	RC-06	Scope absent; or scope overclaimed (e.g., universal CUI applicability claimed without system determination; WCAG 2.2 claimed as legal baseline)	Scope present but insufficiently bounded; over- or under-inclusive in ways that would create audit risk	Scope statement bounded, accurate, and explicitly free from the hard-fail overclaiming conditions listed in Section 8.2
PR-04	Document Control Metadata (RC-11)	RC-11	Two or more required metadata fields missing (Author, Date, Version, Review indicator)	One required metadata field missing or incomplete	All required metadata fields present and correctly formatted
PR-05	Internal Consistency	RC-07	Two or more internal contradictions, broken traceability links, or mismatched IDs	One internal inconsistency present	Artifact internally consistent throughout; all artifact IDs, CW references, and cross-references align

Completed peer review rubrics are submitted via the LMS assignment system and entered in A-12 as a change log record, tagged to the artifact under review (RC-07, RC-11). The reviewing learner’s name and the artifact version reviewed must be recorded in the A-12 entry. A score of 1 on PR-01 or PR-03 must be escalated to the instructor within 24 hours of the peer review submission.

8.7. GATES 1-5 READINESS LIST — FORMATIVE INSTRUMENT 2 OF 2 (INSTRUCTOR USE)

This checklist is completed by the instructor or designated gate reviewer at each module gate (see Section 8.2 for gate pass/fail conditions). It supplements — and does not override — the gate conditions defined in the Acceptance Gate Summary. A single “Gate Hold” on any checklist item suspends artifact advancement until the condition is resolved and



the item re-verified.

GATE ITEM	VERIFIED	FLAG
All required artifact IDs for this module are present with correct version numbers	<input type="checkbox"/> Yes <input type="checkbox"/> Partial <input type="checkbox"/> No	Partial or No → Gate Hold
RC-11 metadata complete on all module artifacts (Author, Date, Version, Review indicator)	<input type="checkbox"/> Yes <input type="checkbox"/> Partial <input type="checkbox"/> No	No on any artifact → Gate Hold
At least one regulatory clause correctly cited and operationalized in the module's primary artifact	<input type="checkbox"/> Yes <input type="checkbox"/> No	No → Gate Hold
No hard-fail conditions triggered (per Section 8.2 Hard Fail list)	<input type="checkbox"/> Confirmed <input type="checkbox"/> Not Confirmed	Not Confirmed → Gate Hold; instructor escalation
Peer review rubric (PR-01 to PR-05) submitted for at least the primary production artifact	<input type="checkbox"/> Yes <input type="checkbox"/> No	No → Gate Advisory (hold on second occurrence)
A-12 change log updated with all revisions since the previous gate	<input type="checkbox"/> Yes <input type="checkbox"/> No	No → Gate Hold

8.8. MASTER OBJECTIVES-TO-ASSESSMENT ALIGNMENT MATRIX

The following table provides a single consolidated reference mapping each Course Terminal Objective and Enabling Objective to its primary assessment artifacts, module location, rubric criteria, and acceptance gate. This table supplements – and does not replace – the per-module lesson tables in Section 7 and the ECD Student Competency Model in Section 2.5. Its purpose is to enable a reviewer or auditor to trace any objective to its evidence chain in a single lookup.

(ID=Objective ID; 1°ART.=Primary artifact(s); 2°ART.=Secondary/supporting artifact(s); MOD.=Module; RC=Rubric criteria; G=Gate):

ID	OBJECTIVE SUMMARY	1°ART.	2°ART	MOD.	RC	G
TLO	Produce a complete, indexed, audit-defensible training system artifact package	A-17 (capstone integration)	All A-01 through A-16	Cap-stone	RC-01 through RC-11	G-5
EO. M1	Construct evidence brief: performance evidence, failure modes, compliance drivers, scope assumptions	A-01, A-02, A-03	A-05 outline	M1	RC-01, RC-03, RC-06	G-1
EO. M2	Produce regulatory traceability matrix (≥15 requirements, edge cases documented)	A-04, A-05	A-13 outline	M2	RC-02, RC-04, RC-08	G-2
EO. M3	Design job aid and assessment plan with rubric criteria, remediation pathways, evidence storage specifications	A-06, A-07	A-15 draft	M3	RC-02, RC-03, RC-05	G-3
EO. M4	Develop QA/UAT plan, accessibility validation plan, LMS deployment plan with audit-trail strategy	A-08, A-10, A-11	A-09	M4	RC-04, RC-05, RC-07, RC-10	G-4
EO. M5	Produce governance/RACI plan, records retention plan, CI/CAPA plan, indexed audit response packet	A-13, A-14, A-15 final, A-16	A-12 complete	M5	RC-07, RC-08, RC-09, RC-11	G-5



SECTION 9: PROTOTYPING, ITERATION, AND ACCEPTANCE PIPELINE

The weekly prototype-review-revise-release pipeline is intentionally designed to model what it teaches. A quality management pipeline in federal contracting does not deliver untested outputs; neither does this course. Each week produces a releasable artifact draft that passes an explicit acceptance gate before the next module becomes accessible – mirroring gated delivery under compliance constraints.

9.1. LEARNER WEEKLY PROTOTYPE TARGETS

WEEK	PROTOTYPE TARGETS	GATE	NON-NEGOTIABLE GATE CRITERIA
WEEK 0 (OPT.)	Bridge pre-assessment · Tool access provisioning · Template orientation	Entry Check	Prerequisite gaps identified; FedRAMP LMS access confirmed; NARA naming convention reviewed (CW-15).
WEEK 1	A-01 v1.1 Evidence Brief · A-03 v1 Risk Register · A-12 v0.1 (NARA naming, RC-11 metadata)	G-1	No unsupported claims; evidence outputs behavior-based (RC-01, RC-03); A-12 metadata complete (RC-07, RC-11).
WEEK 2	A-04 v1 Traceability Matrix · A-05 v1 Workflow Decomposition · A-13 outline	G-2	Traceability complete with retention/index field; NARA naming; indexing logic initiated (RC-02, RC-08, RC-11). No attendance-only evidence.
WEEK 3	A-06 v1 Job Aid · A-07 v1 Assessment Plan · A-15 v0.5 CAPA draft	G-3	Job aid passes time-to-use test (≤60 sec); rubric defensible and mapped to A-04; remediation evidence defined; metadata complete (RC-11).
WEEK 4	A-08 v1 Accessibility Plan · A-10 v1 QA/UAT · A-11 v1 LMS Plan (cmi5/xAPI) · A-09 v1 Security Plan	G-4	508 baseline correct (NOT WCAG 2.2 — hard fail); TT tester qualification field complete; cmi5/xAPI spec in A-11; Privacy Act determination in A-09; all RC-11 metadata (RC-04, RC-05, RC-07, RC-08, RC-11).
WEEK 5	A-13 v1 Records Plan · A-14 v1 CI Plan · A-15 v1 CAPA final · A-16 v1 Governance · A-17 final · Complete bundle	G-5 (Capstone)	Timed audit defense ≤10 min; all evidence retrievable; version log complete with NARA naming; xAPI retention aligned to FAR 4.703; all RC-11 metadata present; portfolio abstract submitted.

Feedback sources: Structured peer review (rubric-based); Instructor review (compliance/evidence focus); “Audit simulation” reviewer role (Weeks 4–5); optional SME expertise, cognition, viability check panel

Integration rules: All feedback via controlled change log entries in A-12; all revisions update A-12 with author/date/rationale (RC-07, RC-11); high-risk issues (traceability gaps, compliance misstatements, missing evidence) require remediation before progression.

9.2. PRE-LAUNCH PILOT PROTOCOL (RECOMMENDED)

Prior to first full delivery, a condensed pilot cohort (3–8 representative learners) is recommended. Pilot deliverables: (1) learner time-on-task log per module; (2) instructor-scored sample of each artifact type against rubric criteria; (3) vILT session recording; (4) written pilot debrief against pacing, clarity, and technology friction. Findings are documented in A-15 (CAPA Plan) and used to adjust Week 0 onboarding, gate criteria, or time estimates before live delivery. The pilot validates course infrastructure and instructor readiness; it does not replace the learner prototype cycle.



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SECTION 10: SAMPLE TEMPLATES — INCIDENT REPORTING TRACK

The following excerpts apply the blueprint to a Tier-1 incident reporting (suspicious email/device event) workflow in a defense-contractor environment. All data are sanitized; no real system names, CUI, or PII appear in any example.

CROSS-REFERENCE (v0.5): For complete filled templates covering all 17 artifacts (A-01 through A-17), see Addendum D. The excerpts below are retained as in-line design reference material; Addendum D constitutes the authoritative template library for course delivery use.

10.1. A-01 EVIDENCE BRIEF (FILLED EXCERPT)

FIELD	COMPLETED ENTRY
DOCUMENT CONTROL	Author: [Name] · Date: YYYYMMDD · Version: 1.1 · Approval: [Reviewer Name, Role, Date] · Document ID: YYYYMMDD_A01_v1.1_Initials
WORKFLOW NAME	Tier-1 Incident Reporting — Suspicious Email / Endpoint Event
REGULATED DRIVERS	NIST SP 800-61r3 (CW-11): IR integrated into risk management / CSF 2.0. FAR 52.203-13 (CW-01): ethics and compliance training as internal control. CMMC Level 2 (CW-09, Phase 1 effective Nov 10, 2025 — VERIFY against current DoD CIO CMMC resources before operational use).
REQUIRED BEHAVIORS	(1) Employee identifies suspicious email/device event and correctly classifies per org policy. (2) Employee completes Tier-1 report artifact within 60 minutes of recognition. (3) Report contains all required fields. (4) Employee escalates to Tier-2 when threshold criteria met.
EVIDENCE OUTPUTS	Completed Tier-1 report artifact · Rubric score for report quality · Remediation record if report failed review · Retest evidence · xAPI completion statement from LRS · Version log entry · Retention/index entry per A-13
SCOPE ASSUMPTIONS (DATED)	Training scenarios sanitized — no actual incident details or CUI. NIST 800-171 applicability: scoped to training components that process CUI if applicable; not universally claimed. Section 508 baseline: Revised 508/WCAG 2.0 A/AA (NOT WCAG 2.2). CMMC Phase 1 timeline as of 2025 — VERIFY before deployment. Privacy Act: LMS records contain PII (learner IDs, scores, timestamps); Privacy Act applicability determination required.
NON-TRAINING CONTROLS	Automated email filtering system (technical control) · Escalation threshold policy (administrative control)

10.2. A-03 RISK REGISTER (FILLED EXCERPTS)

The following filled excerpts apply the A-03 Risk Register template to the same Tier-1 incident reporting (suspicious email/device event) workflow used in Sections 10.1 and 10.2. Two representative risk entries are shown (RSK-001 and RSK-002). A complete A-03 artifact would cover all identified risks for the full regulated workflow scope. All data are sanitized; no real systems, personnel, contract numbers, or CUI are referenced.

FIELD	COMPLETED ENTRY
DOCUMENT CONTROL	Author: [Name] · Date: YYYYMMDD · Version: 1.0 · Status: Draft · Review Indicator: Pending Gate 1
ARTIFACT ID	A-03
WORKFLOW SCOPE	Tier-1 Suspicious Email/Device Incident Reporting — [Notional Defense Contractor Entity]
RISK IDENTIFIER	RSK-001



FIELD	COMPLETED ENTRY
RISK STATEMENT	Training artifact completions are not recorded with sufficient metadata (learner ID, content version, timestamp) to constitute an auditable completion record under FAR Subpart 4.7 record retention requirements (CW-02).
LIKELIHOOD (1–5)	3 – Moderate: current LMS configuration relies on default xAPI statement structure that does not capture content version-context metadata fields
IMPACT (1–5)	5 – Critical: absence of auditable completion records constitutes a direct finding risk under DCAA pre-award accounting system adequacy reviews (CW-07) and OMB A-123 internal control evaluations (CW-09)
RISK RATING (L × I)	15 – HIGH
MITIGATION STRATEGY	Configure LRS to capture xAPI statements with required fields: learner ID, content version, timestamp (ISO 8601 format), and completion verb. Validate configuration via A-11 (LMS/LRS Configuration Baseline) before first delivery. Remediation owner: LMS Administrator. Target completion date: prior to initial delivery.
RESIDUAL RISK	LOW if mitigation implemented and verified in A-11; MEDIUM if LRS configuration cannot be independently verified before delivery
REGULATORY ANCHORS	CW-02 (FAR Subpart 4.7) · CW-09 (OMB A-123) · CW-07 (DCAA Pre-Award Governance Analogue) · CW-13 (NIST SP 800-171 audit log requirements, if CUI-scope content is delivered)
ARTIFACT LINKS	A-11 (LMS/LRS Config) · A-12 (Change Log) · A-14 (Training Monitoring Plan)

FIELD	COMPLETED ENTRY
DOCUMENT CONTROL	Author: [Name] · Date: YYYYMMDD · Version: 1.0 · Status: Draft · Review Indicator: Pending Gate 1
ARTIFACT ID	A-03
RISK IDENTIFIER	RSK-002
RISK STATEMENT	Course content has not undergone a pre-release conformance review against Revised Section 508 / WCAG 2.0 Level AA standards (CW-26), creating accessibility non-conformance risk.
LIKELIHOOD (1–5)	4 – High: content development process does not currently include a mandatory pre-release Trusted Tester or equivalent conformance check
IMPACT (1–5)	4 – High: non-conformant content may be inaccessible to learners with disabilities; creates legal exposure under Revised Section 508 and audit finding risk
RISK RATING (L × I)	16 – HIGH
MITIGATION STRATEGY	Mandate DHS Trusted Tester (or equivalent approved method) conformance check as a gated condition in A-08 before content is published to the LMS. Assign a qualified accessibility reviewer role; document reviewer qualification in A-08.
RESIDUAL RISK	LOW if A-08 gate is enforced and reviewer qualification is documented; MEDIUM if reviewer role is unfilled at delivery
REGULATORY ANCHORS	CW-26 (Revised Section 508 / 82 Fed. Reg. 5790) · CW-27 (WCAG 2.0 Level AA)
ARTIFACT LINKS	A-08 (Accessibility Validation Plan) · A-12 (Change Log)

10.3. A-04 TRACEABILITY MATRIX (FILLED EXCERPT)

The following excerpt demonstrates the A-04 Traceability Matrix structure for the notional incident reporting scenario. Five representative regulatory requirements are traced through the full evidence chain: source requirement → CW



anchor → training objective → artifact evidence → verification method → retention period. The complete A-04 artifact covers all requirements identified in the Scope and Compliance Drivers document (A-02) for the target workflow. All data are sanitized.

(ID=Trace ID; REG.REQ.=Regulatory requirement & source); CW=crosswalk anchor; EVIDENCE=Artifact evidence; VERIF.=Verification method; RET.PER.=Retention period):

ID	REG.REQ.	CW	TRAINING OBJECTIVE	EVIDENCE	VERIF.	RET.PER.
TR-001	FAR 52.203-13(c)(2)(ii): Ethics program must include training on contractor code of conduct with documented completion records	CW-01	Learner produces an Evidence Brief demonstrating that training completion records function as internal control documentation, with regulatory clause cited and evidence output defined	A-01 v1.1 (Evidence Brief) · A-14 (Training Plan) · A-15 (Learner Completions Log)	Gate 1 instructor review; LRS completion record verified against A-11 configuration baseline	3 years post-contract closeout per FAR 4.703(a)
TR-002	FAR Subpart 4.7 (4.703): Contractor must retain training records for the period specified in the contract, or 3 years, whichever is longer	CW-02	Learner configures LMS/LRS retention logic to enforce FAR 4.7-compliant record lifecycle, with retention basis cited to specific clause	A-11 v1.0 (LMS/LRS Configuration Baseline) · A-12 (Change Log showing configuration decisions)	Gate 4 QA review of A-11 against FAR 4.703 retention table	Minimum 3 years from training record creation; confirm against contract terms
TR-003	NIST SP 800-171 Rev. 3, Control 3.1.1: Limit system access to authorized users and authorized types of transactions	CW-13	Learner produces a Security Posture Statement scoping CUI handling applicability for the training system, explicitly bounded against system authorization documentation	A-09 v1.0 (Security Posture Statement)	Gate 4 instructor review; RC-06 scope accuracy check (no universal CUI applicability claimed)	Duration of system authorization (ATO) + 3 years
TR-004	Revised Section 508 (82 Fed. Reg. 5790) / WCAG 2.0 Level A and AA: All electronic content provided to employees must conform to applicable ICT accessibility standards	CW-26	Learner produces an Accessibility Validation Plan documenting the WCAG 2.0 AA conformance baseline, DHS Trusted Tester-aligned verification method, and tester qualification	A-08 v1.0 (Accessibility Validation Plan)	Trusted Tester method (GSA/Section508.gov); Gate 4; RC-04 accessibility criterion check	Duration of content availability + 3 years; update plan at each major content revision
TR-005	2 CFR § 200.303: Non-federal entities must establish and maintain effective internal controls over federal awards	CW-05	Learner develops a Governance Architecture Document linking training system controls to federal award compliance monitoring requirements, with RACI and review cadence specified	A-16 v1.0 (Governance Architecture Document)	Gate 5 / capstone review; RC-01 clause fidelity check; RC-09 RACI and role clarity check	Duration of federal award + audit resolution period per 2 CFR § 200.344

Table 10.4-A: A-04 Traceability Matrix excerpt (5 of [n] total requirements). The complete matrix covers all requirements identified in A-02. Verification methods reference the acceptance gate conditions in Section 8.2. Retention periods cite FAR Subpart 4.7 baseline requirements (CW-02) as the floor; contract-specific retention requirements take precedence and must be verified per Section 13.5, assumption (5).

10.4. A-08 ACCESSIBILITY VALIDATION PLAN (FILLED EXCERPT)



FIELD	COMPLETED ENTRY
DOCUMENT CONTROL	Author: [Name] · Date: YYYYMMDD · Version: 1.0 · Approval: [Reviewer Name, Role, Date] · Document ID: YYYYMMDD_A08_v1.0_Initials
CONFORMANCE BASELINE	Revised Section 508 Standards (82 Fed. Reg. 5790) incorporating WCAG 2.0 Level A and Level AA by reference. NOTE: WCAG 2.0 AA is the legal compliance threshold — misclaiming a higher WCAG version as the 508 legal baseline is a hard fail condition. Agencies may legitimately implement WCAG 2.1 or 2.2 as their operational standard above the legal floor; the hard fail applies specifically to misidentifying that operational standard as the legal compliance threshold rather than as an agency choice above the minimum.
VALIDATION METHOD	Manual testing aligned to DHS Trusted Tester process (current version — verify at Section508.gov before deployment, CW-25). Automated supplemental scan (not sole method; manual required per CW-25).
TESTER QUALIFICATION (REQUIRED)	Designated tester: [Name · Certification Status · TT Certification ID or “certification pending” — field must be completed before release; blank = hard fail]. Agencies adopting TT-only acceptance require certified tester.
CONTENT TYPES COVERED	eLearning modules (cmi5 Aus / SCORM) · Instructional video with captions · PDF job aids · Spreadsheet artifacts (A-04, A-12 templates) · Mobile-responsive content objects
EVIDENCE OUTPUTS	Test log (pass/fail per WCAG 2.0 success criterion) · Defect log (issue ID, severity, description, status) · Retest confirmation (date, tester ID, outcome) · Conformance statement (ready/conditional/do not release)
RELEASE GATE	No “Critical” accessibility defects open at release. All evidence outputs complete and archived per A-12 with NARA naming.



SECTION 11: DELIVERY, TECHNOLOGY, AND OPERATIONAL CONTROLS

Implementation details are environment-dependent; they validate authorizations, security categorization, and records requirements in the target environment prior to deployment.

11.1. DELIVERY MODALITIES

ASYNCHRONOUS: Microlearning segments (10–15 min) + readings + artifact work via FedRAMP-authorized LMS. Content packaged as cmi5 Aus (preferred) or SCORM 1.2. xAPI statements captured in LRS for compliance verb evidence. Assignments submitted with timestamp and version history.

vILT WORKSHOPS: One per module; demonstration, critique, and governance simulation. FedRAMP-authorized conferencing with live captions required. Recorded; recordings retained per A-12 with NARA naming. Breakout rooms for peer calibration.

OFFICE HOURS & ASYNC ALTERNATIVE: Recorded screencast walkthrough per module for vILT-restricted environments. Async Q&A thread in LMS discussion board.

11.2. TECHNOLOGY QUICK-REFERENCE (SEE SECTION 2.5 FOR FULL SPECIFICATIONS)

(Tool names are examples. Equivalents that meet the target environment’s authorization and data handling requirements should be selected, then record final selections in P-01.)

FIELD	COMPLETED ENTRY
LMS	FedRAMP-authorized (Canvas GovCloud, Moodle GovCloud, or Blackboard/Anthology Government).
LRS	SCORM Cloud GovCloud or Veracity Learning for xAPI statement retention aligned to FAR 4.703.
CONFERENCING	Zoom for Government, Google Meet Enterprise, or Microsoft Teams GovCloud.
FILE STORAGE	SharePoint GovCloud with NARA-compliant folder naming enforced. All selections verified at marketplace.fedramp.gov before deployment and documented in P-01.

11.3. ACCESSIBILITY, QUALITY, AND PRIVACY CONTROLS

ACCESSIBILITY: Revised Section 508/WCAG 2.0 Level A and Level AA success criteria + conformance requirements (Revised 508) throughout. All course media captioned with transcripts. All documents structurally accessible. Course-level accessibility documentation in P-07. cmi5/mobile content tested per ICT Testing Baseline + DHS Trusted Tester process (where applicable) (CW-25).

UNIVERSAL DESIGN FOR LEARNING (UDL): This course applies UDL principles (CAST, 2018) throughout its design: multiple means of representation via asynchronous microlearning modules, vILT demonstration, and fillable artifact templates; multiple means of engagement via peer calibration, audit simulation, and iterative feedback cycles; multiple means of action and expression via the artifact-based assessment model. Specific UDL implementation decisions are documented in P-05.



QUALITY ASSURANCE: Peer review calibration → Instructor compliance/evidence review → Structured UAT simulation
→ Controlled change management via A-12. The QMS the course teaches is the QMS the course uses.

PRIVACY CONTROLS: LMS learner records (IDs, scores, timestamps) constitute PII. Privacy Act applicability determination required before deployment. Data minimization, destruction schedule, and access logs by role required in A-09 and P-08.



SECTION 12: REFERENCES

This blueprint uses GPO Style Manual conventions for regulatory, statutory, and government report citations, and APA 7th edition for peer-reviewed and academic sources. This dual-format approach is due to the anticipation of the final course design blueprint being integrated into the course as a job aid/template, to be made available for the capstone project. Learners should both have operational fluency in ISD/LXD/learning sciences literature (APA), and gain or develop fluency in the government documentation environment (GPO style), as a course design using APA for regulatory citations reflects domain-inconsistency, but learners must be fluent in both.

12.1. REGULATORY, STATUTORY, AND GOVERNMENT STANDARDS (GPO STYLE)

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SECTION 13: DESIGNER NOTES, DECISIONS, AND KNOWN ASSUMPTIONS

13.1. TITLE AND SECTOR FRAMING

The title "Federal R&D and Mission Programs" with subtitle "Evidence-Anchored ISD for Regulated Technical and Defense-Adjacent Environments" is sector-native within a bounded domain. The domain scope is inclusive of—and intended to represent transferability across—defense, biotech, aerospace, and various federal R&D domains, while excluding undesirable scope creep into the entire federal domain. Titles using “Regulated Environments” or similar were considered but were too broad to differentiate between federal talent markets learners might be pursuing; while transferability and applicability to these non-target domains and their markets exists, this is an incidental carry-over of the course design, rather than a course feature. Learners entering the federal or regulated environment outside of the domain this course covers are encouraged to identify courses more closely calibrated to their professional aspirations.

13.2. CROSSWALK NUMBERING RATIONALE

This blueprint uses 38 compliance crosswalk anchors (CW-01–CW-38). Items CW-01 through CW-14 correspond to core federal acquisition, risk management, audit, and compliance standards. Items CW-15 through CW-20 cover OPM instructional systems, TRADOC training management, NARA records management, DoD OIG audit oversight, and DFARS cybersecurity rules. Items CW-21 through CW-36 cover CMMC phases, accessibility standards, configuration management, quality management, and xAPI/cmi5 specifications. This numbering is controlled and must not be changed without updating all cross-references in artifact catalogs, lesson tables, and acceptance gates.

13.3. INTENTIONALLY EXCLUDED CONTENTS

This course does not teach eLearning authoring tool proficiency (Articulate 360, Adobe Captivate, etc.). Authoring tool skills are assumed as a prerequisite available through vendor training. This course teaches the evidence system architecture and governance discipline that makes eLearning development audit-defensible. The course also does not teach SCORM/xAPI technical implementation at the developer level; it teaches deployment operations, reporting specifications, xAPI statement design for evidence purposes, and audit trail design that applies regardless of the technical production approach.

13.4. RATIONALE FOR TECHNOLOGY STACK DECISIONS

cmi5 is preferred over SCORM for this course because: (1) xAPI-native completion statements align directly with compliance evidence verbs; (2) controlled launch prevents unauthorized access to content outside the LMS; (3) AU-level completion tracking enables granular evidence capture matching traceability matrix rows. SCORM 1.2 is acceptable as fallback where LMS lacks cmi5 support. SCORM 2004 offers sequencing, branching, and navigation control features not available in SCORM 1.2; however, these capabilities are infrequently utilized in government LMS environments, where interoperability requirements and legacy platform constraints typically favor SCORM 1.2 or, preferably, cmi5 with xAPI. In environments where adaptive sequencing or mastery-gated navigation is operationally required, SCORM 2004 may be the appropriate selection; designers must verify full LMS compatibility before specifying it and document the rationale in P-01. LRS selection (SCORM Cloud GovCloud or Veracity) must be FedRAMP-authorized; xAPI statement retention period must be explicitly set to match FAR 4.703 minimum (3 years for standard contractor records).

13.5. PRE-DELIVERY VERIFICATION OF EXPLICIT ASSUMPTIONS (SEE ADDENDUM E.)



The pre-delivery verification checklist has been moved to Addendum E for operational accessibility. See Addendum E for the complete 10-item pre-delivery protocol.

13.6. 13.6. DOCUMENT NAMING AND NARA COMPLIANCE

This blueprint uses a hybrid filename convention that preserves human-readable document ID and version information (REGLXD-GRAD-BP-001-v0_6-FINAL.docx) for portfolio usability while the NARA-compliant canonical name (20260311_REGLXD-GRAD-BP-001_v0.6_CAS.docx) is recorded in the Document Control block on the cover page. For operational use, the NARA-compliant canonical name governs filing and retrieval per the naming convention defined at VC-L in Section 3.2 (YYYYMMDD_ArtifactID_vX.X_AuthorInitials). The portfolio filename is used for distribution only. This note closes the RC-08 self-referential traceability requirement: the document practices the naming discipline it prescribes.

13.7. 13.7. BLUEPRINT DOCUMENT GOVERNANCE

AUTHOR/DESIGNER: Christopher A. Stamplis, MEd — responsible for all design decisions, version control entries, and content updates.

SME REVIEW: Not yet designated (pre-operational prototype). For operational use, an SME with domain expertise in federal acquisition and training system governance should be designated as Reviewer in the RACI before institutional adoption.

APPROVAL AUTHORITY: Not yet designated (portfolio prototype). For operational use, a program or contracting officer authority should provide formal approval before deployment as a controlled training document.

MANDATORY REVIEW TRIGGERS: (1) Any regulatory update to a cited CW-series source; (2) Annual calendar review; (3) CMMC phase change or GAGAS effective date passage; (4) Any identified compliance error in a CW entry. See Addendum G (changelog) and Addendum B.3 (revision cycle governance rules) for change control procedures. (This page intentionally left blank.)



ADDENDUM A: FRONT-END ANALYSIS (SANITIZED PROXY SAMPLE)

PROXY NOTICE: This front-end analysis is constructed using a high-fidelity representative proxy of the government defense contractor environment within this course’s target domain. No real organization, personnel, contract vehicle, system name, or CUI is referenced. The proxy is structurally and operationally representative of the learner population and work context for which this course is designed, and is grounded in the validated domain evidence presented in Section 1.2. This document section satisfies the systematic design requirement for documented needs analysis (Dick et al., 2015) and grounds the workload estimates and instructional decisions present throughout the blueprint.

A.1. ORGANIZATIONAL CONTEXT

FIELD	DETAIL
ORGANIZATION TYPE	Mid-size U.S. defense subcontractor (50–300 employees); qualifies as a small business under NAICS 541715 (R&D in physical, engineering, and life sciences, except biotechnology)
CONTRACT VEHICLE	Prime subcontractor to a DoD program office; multiple CPFF and T&M task orders under an IDIQ vehicle; subject to CAS applicability thresholds; current contract includes DFARS 252.204-7012 clause
PRIMARY REGULATORY EXPOSURE	FAR Part 4 (records), FAR 52.203-13 (ethics/compliance training), DFARS 252.204-7012 (CUI/cybersecurity), NIST SP 800-171 Rev. 3 (CUI protection), 2 CFR Part 200 (Uniform Guidance, limited), Revised Section 508 (ICT accessibility), GAGAS 2024 (Yellow Book, limited applicability to federally-funded deliverables), DCAA audit exposure (pre-award and interim)
TRAINING FUNCTION	Internal L&D function: 1–2 ISD or equivalent staff; no dedicated compliance training function; training documentation maintained informally in SharePoint; no LRS; training completions recorded in an HR spreadsheet
CURRENT TRAINING SYSTEM STATE	Fragmented and audit-indefensible: ethics training delivered via an off-the-shelf vendor package with no customization to FAR clause requirements; incident reporting training is OJT-only with no documentation; no formal traceability from training completion to compliance clause; no evidence packaging; SCORM packages stored informally in SharePoint (not a compliant LMS)
AUDIT HISTORY	Two prior DCAA findings related to training record completeness; no formal corrective action plan (CAPA) filed for the training system specifically; current pre-award accounting system adequacy rating: Adequate with Conditions
TECHNOLOGY ENVIRONMENT	Collaboration: SharePoint Online GCC; conferencing: Microsoft Teams GCC; document management: SharePoint Online GCC; no FedRAMP-authorized LMS; no xAPI or LRS capability currently in place

A.2. PERFORMANCE AND NEEDS ANALYSIS

The following gap analysis identifies the measurable distance between current state (IS) and required target state (SHOULD) across five performance domains relevant to training system compliance. The analysis applies the systematic design framework (Dick et al., 2015) and is the evidentiary basis for the course structure, module sequence, and artifact architecture.

(MAGNITUDE=Severity/magnitude of gap):

DOMAIN	IS (CURRENT STATE)	SHOULD (TARGET STATE)	MAGNITUDE	COURSE IMPLICATION
REGULATORY KNOWLEDGE	ISD staff cannot map training activities to specific FAR, DFARS,	ISD staff translate regulatory clauses into verifiable training	HIGH – foundational	Addressed in Module 1 (epistemic reframing)



DOMAIN	IS (CURRENT STATE)	SHOULD (TARGET STATE)	MAGNITUED	COURSE IMPLICATION
	or NIST clauses; compliance scope is undefined; “compliance training” is understood as a category but not as an operationalized control	system requirements with documented evidence logic anchored to specific clause language	conceptual deficit; most significant gap	from content-delivery to internal control) and Module 2 (traceability architecture)
EVIDENCE PACKAGING	Training records exist in spreadsheet form; no formal traceability from individual completion to specific regulatory clause; no retention architecture tied to contract requirements	Complete evidence chain from regulatory clause → objective → artifact → retention period documented and retrievable within 10 minutes of an audit request	HIGH — structural gap affecting all downstream compliance posture	Addressed in Modules 2 and 5 (A-04 Traceability Matrix, A-13 Records Retention Plan, A-17 Capstone Package)
ASSESSMENT DESIGN	All assessments are completion-based (click-through or attendance-only); no performance evidence produced; no audit-defensible grading standard	All graded activities produce controlled evidence artifacts with explicit evidence logic, performance thresholds, and remediation pathways	HIGH — assessment system produces no defensible evidence	Addressed in Module 3 (A-06 Job Aid, A-07 Assessment Plan, A-15 Exception and CAPA protocol)
TECHNICAL AND PLATFORM COMPLIANCE	LMS is not FedRAMP-authorized; no xAPI; no LRS; SCORM packages stored in SharePoint; no cmi5; no automated retention	FedRAMP-authorized LMS; xAPI statement capture in a compliant LRS; cmi5 content packaging preferred; records retained per FAR 4.7 with NARA naming conventions	HIGH — entire technical infrastructure requires redesign	Addressed in Module 4 (A-08 Accessibility Plan, A-09 Security Posture, A-10 QA/UAT Plan, A-11 LMS/LRS Configuration)
GOVERNANCE AND AUDIT READINESS	No governance framework; no RACI for training records; no monitoring cadence; no audit response protocol; no CAPA process for training deficiencies	Formal governance architecture with documented RACI, trigger-based monitoring schedule, audit-ready evidence retrieval protocol, and CAPA integration	HIGH — organization has no capacity to respond to a training-related audit request defensibly	Addressed in Module 5 (A-14 Monitoring Plan, A-16 Governance Architecture, A-17 Integrated Capstone)

A.3. LEARNER PROFILE AND CONTEXT ANALYSIS

The following learner profile is derived from the target population analysis grounding this course design. These characteristics directly informed content difficulty, artifact complexity, prerequisite requirements, cognitive load management strategies (Sweller, 1988), and the structure of the scaffolded production arc.

FIELD	DETAIL
PRIMARY TARGET POPULATION	Practicing ISD/ID/LXD/L&D professionals (1–7 years experience) currently employed by or supporting federal R&D or defense-adjacent contractors; includes recent graduate-level ISD program completers transitioning into compliance-adjacent practitioner roles
SECONDARY TARGET POPULATION	Federal program office training coordinators with contracting oversight responsibility; experienced L&D generalists reorienting toward regulated environments
INSTR. DESIGN KNOWLEDGE	Functional to proficient: primary population can produce an ADDIE-based design document, write Bloom-aligned objectives, and operate standard authoring tools (Articulate 360 or equivalent). This level of ISD proficiency is a prerequisite for enrollment and is verified in Week 0.



FIELD	DETAIL
REGULAT. PRIOR KNOWLEDGE	Novice to low-intermediate: most learners can identify “compliance training” as a category but cannot operationalize specific clause requirements, produce traceable evidence artifacts, or distinguish an auditable completion record from a participation record. This gap is the primary course rationale.
TECHNOL. PRIOR KNOWLEDGE –	Mixed: majority are functionally proficient with LMS management and SCORM packaging; minority have xAPI/LRS experience; FedRAMP/ATO conceptual orientation is required for all learners and addressed in Week 0
WORK CONTEXT	Majority are employed full-time in the target domain or adjacent sectors. Standard track (8-week) is designed for working professionals at 9–12 hours/week (see Section 2.1, derivation note). Accelerated track (5-week) requires 16–22 hours/week and is suitable only for learners with demonstrable compliance-domain familiarity verified in Week 0 diagnostic.
LEARNER MOTIVATION	Primarily extrinsic-to-intrinsic: learners enter motivated by career positioning in a growing, underserved sector. Course design leverages this through authentic artifact production with direct portfolio and operational value (Knowles et al., 2015). The artifact set constitutes a deliverable portfolio, not a simulated exercise.
ACCESSIBILITY & ENVIRONMENT	Learners are geographically distributed. Course is delivered asynchronously (primary) with one synchronous vILT workshop per module (secondary). All content must meet Revised Section 508/WCAG 2.0 AA requirements per Section 11.3. Learners are assumed to be operating within or adjacent to FedRAMP-controlled environments.

A.4. SYSTEM CONSTRAINTS AND CONFIGURATION AUDIT

The following system constraints were identified through a pre-design configuration review of the notional contractor environment. Constraints directly shaped the technology stack decisions in Section 2.5 and the platform requirements mapped through CW-11 and CW-15.

CONSTRAINT	CURRENT STATE	REQUIRED STATE	DESIGN RESOLUTION
LMS AUTHORIZATION	SharePoint used as informal LMS; not FedRAMP-authorized for CUI; no audit trail	FedRAMP-authorized LMS with timestamped assignment submission and completion records	Require FedRAMP-authorized LMS as a pre-delivery gate; documented in P-01 and verified in A-11
CONTENT PACKAGING	SCORM 1.2 packages stored in SharePoint; no LRS; no xAPI	cmi5 preferred; xAPI + LRS required for compliance logging; SCORM 1.2 acceptable as interim	Design specifies cmi5/xAPI as the target stack; Section 2.5 and Section 13.4; rationale documented in P-01
RECORD RETENTION	Spreadsheet-based; no automated retention schedule; no NARA naming convention	FAR 4.7-compliant retention with clause-cited basis and NARA-consistent naming	A-13 Records Retention Plan and A-11 LMS/LRS Configuration address retention logic; Section 11.1 specifies delivery retention requirements
ACCESSIBILITY REVIEW	No formal accessibility conformance review process	DHS Trusted Tester (or equivalent approved method) required before content publication	A-08 Accessibility Validation Plan is a gate condition; Section 11.3 specifies controls
SECURITY/ATO REVIEW	No formal ATO for the training system; content may include CUI-adjacent material	FedRAMP authorization or valid ATO required before delivery	A-09 Security Posture Statement establishes scope determination; Section 2.5 and Section 13.5 item (6)
PRIVACY / PII	Learner records (IDs, scores, timestamps) handled without a Privacy Act determination	Privacy Act applicability determination required; data minimization and destruction schedule required	Section 11.3 Privacy Controls note addresses this; pre-delivery verification required per Section 13.5

A.5. SOLUTION JUSTIFICATION



The following justification documents the rationale for selecting a blended asynchronous/vILT professional development course as the appropriate performance improvement intervention, consistent with the systematic design process (Dick et al., 2015).

FIELD	DETAIL
PERFORMANCE GAP TYPE	Combined knowledge/skill deficit and environmental/systems deficit. This is not a motivation or incentive problem. A training-plus-system-redesign intervention is appropriate; training alone is insufficient without addressing the technical platform and governance gaps identified in A.2.
INSTRUCTIONAL APPROACH	Artifact-based learning with embedded compliance framing is appropriate for experienced professionals requiring operational competence, not conceptual awareness (Knowles et al., 2015; Collins et al., 1989). Content-delivery models are explicitly rejected as inconsistent with the audit-defensible evidence standard.
FORMAT RATIONALE	Asynchronous primary delivery accommodates full-time working professionals. One synchronous vILT workshop per module provides calibration, simulation, and live demonstration without requiring daily synchronous attendance. This hybrid structure is consistent with the learner profile in A.3.
DURATION RATIONALE	The 8-week standard track is calibrated for working professionals producing 17 controlled artifacts across 25 lessons at 9–12 hours/week (see Section 2.1 workload table, corrected v0.5). The 5-week accelerated track at 16–22 hours/week is appropriate only for learners whose prerequisite diagnostic confirms existing regulatory reading proficiency.
NON-INSTRUCTIONAL GAP ELEMENTS	LMS authorization and xAPI/LRS configuration deficits require non-instructional interventions (procurement, IT, and security governance). The course design explicitly incorporates these as artifact production targets (A-09, A-10, A-11) rather than prerequisites, ensuring learners develop the competence to specify and govern these solutions in their operational environments.

SCENARIO DIVERSITY NOTE (DESIGN CONSTRAINT): All scenario characters used in artifact templates, vILT simulation materials, worked examples, and assessment prompts must use varied names, gender representations, and role titles. No single demographic profile is to be used as the default character in instructional scenarios. This is a design constraint applied at the content development stage (Sections 10–11) and does not expand or alter the audience scope defined in this learner profile analysis. Character diversity serves verisimilitude and reduces unconscious demographic assumptions that could narrow scenario interpretation; it does not affect competency scope or assessment standards.



ADDENDUM B: COURSE PROCESS AND DECISION MAP

The following decision map represents the full learner journey through both course tracks, including prerequisite decisions, module gates, revision cycles, and capstone pathways. This map is a navigator’s tool for instructors, program administrators, and IDs conducting course governance. It supplements the Week-by-Week prototype pipeline (Section 9) and the Acceptance Gate Summary (Section 8.2). All decision points reference gate conditions defined in those sections; this map provides the overarching sequence and branching logic.

B.1. ENTRY AND PREREQUISITE DECISION FLOW

(PATH A=Condition met; PATH B=Condition not met):

DECISION POINT	CONDITION ASSESSED	PATH A	PATH B
DP-00: ENROLLMENT ELIGIBILITY	Does the applicant demonstrate prerequisite ISD proficiency (functional authoring tool proficiency; ability to produce a design document; basic familiarity with LMS management)?	Proceed to DP-00a	Directed to prerequisite resources; enrollment deferred until prerequisites confirmed via Week 0 diagnostic
DP-00A: TRACK SELECTION	Does the learner have documented compliance-domain familiarity (regulatory reading; FAR/DFARS clause exposure; prior compliance training design experience) AND confirmed availability of ≥18 hrs/week?	Both confirmed → Accelerated Track (5 weeks)	Either condition absent → Standard Track (8 weeks)
DP-01: GATE 1 (END OF MODULE 1)	A-01 v1.1 accepted: scope defined, at least one clause cited, evidence output specified, RC-11 metadata complete. No unsupported compliance claim.	Proceed to Module 2	Revision cycle: instructor feedback issued; A-12 updated; resubmission within 72 hours (standard) / 48 hours (accelerated)
DP-02: GATE 2 (END OF MODULE 2)	A-04 v1.0 accepted (≥15 trace rows, ≥3 edge cases, CUI scope statement) and A-05 v1.0 accepted. No traceability gap that would constitute a finding.	Proceed to Module 3	Revision cycle; traceability gap hard-fail triggers instructor review before revision is permitted
DP-03: GATE 3 (END OF MODULE 3)	A-06 v1.0 (Job Aid) and A-07 v1.0 (Assessment Plan) accepted. A-15 draft submitted. No RC-01 or RC-06 hard-fail.	Proceed to Module 4	Revision cycle; RC-01 hard-fail on evidence classification triggers instructor SME consultation
DP-04: GATE 4 (END OF MODULE 4)	A-08 v1.0 (Accessibility Plan), A-09 v1.0 (Security Posture), A-10 v1.0 (QA/UAT Plan), and A-11 v1.0 (LMS/LRS Config) accepted. No 508/WCAG 2.2 hard-fail. No universal CUI scope claim.	Proceed to Module 5	Revision cycle; 508 baseline hard-fail triggers Section 11.3 protocol review; instructor review required before resubmission
DP-05: CAPSTONE ENTRY (END OF MODULE 5, GATE 5)	All Gates 1–4 cleared; A-12, A-13, A-14, A-16 accepted; A-17 capstone package initiated with complete artifact index	Proceed to capstone submission	Learner cannot submit capstone; instructor escalation conference required
DP-06: CAPSTONE REVIEW	A-17 complete integrated packet: RC-01 through RC-11 minimum score 3 on all criteria; no hard-fail conditions triggered; all A-01 through A-16 artifacts present, final, and indexed	Course completion; certificate of completion issued; portfolio abstract released	One revision cycle permitted; resubmission within 5 business days



DECISION POINT	CONDITION ASSESSED	PATH A	PATH B
DP-07: RESUBMISSION DECISION	Resubmitted A-17 meets all acceptance conditions	Course completion	Incomplete status; instructor conference required; extension per P-01 policy; second revision by exception only

B.2. TRACK COMPARISON AND SCHEDULE OVERVIEW

(WKS.S.=Number of weeks in standard track; WKS.A.=Number of weeks in accelerated track):

WKS.S.	WKS.A.	MODULE	PRIMARY ARTIFACT TARGETS	GATE
0 (optional bridge)	0 (required bridge)	Pre-course: Prerequisite check, LMS provisioning, FedRAMP orientation	Prerequisite diagnostic; tool access confirmed	Entry Check (DP-00, DP-00a)
1-2	1	Module 1: Training Systems as Internal Controls	A-01 v1.0, A-03 v1.0	Gate 1 (DP-01)
3-4	2	Module 2: Traceability and Evidence Packaging	A-04 v1.0, A-05 v1.0, A-13 outline	Gate 2 (DP-02)
5	3	Module 3: Performance Support and Defensible Assessment	A-06 v1.0, A-07 v1.0, A-15 draft	Gate 3 (DP-03)
6	4	Module 4: QA/UAT, Accessibility, Security, and LMS Operations	A-08 v1.0, A-09 v1.0, A-10 v1.0, A-11 v1.0	Gate 4 (DP-04)
7-8	5	Module 5: Governance, Monitoring, and Audit Defense + Capstone	A-12 (final), A-13 v1.0, A-14 v1.0, A-16 v1.0, A-17 (capstone)	Gate 5 + Capstone (DP-05 through DP-07)

B.3. REVISION CYCLE GOVERNANCE RULES

Revision cycles are governed by the following rules, applied consistently across both tracks. These rules are operational commitments; they should be stated explicitly in P-01 (Course Administrative Data) before delivery.

- All revisions – regardless of scope – must be documented in A-12 (Change Log) with: revision date, author, brief rationale, and artifact version increment. Any revision that changes a regulatory claim or scope statement must additionally note the specific clause affected.
- One revision cycle per gate is permitted before instructor escalation is required. A second revision cycle at the same gate requires a documented instructor conference and is recorded in A-12.
- Any hard-fail condition (Section 8.2) triggered at any gate automatically escalates to instructor review. No learner-initiated revision is permitted following a hard-fail until the instructor has reviewed and explicitly cleared the artifact for revision.
- Revision cycle time limits: standard track – 72 hours from instructor feedback; accelerated track – 48 hours. Extensions require P-01 authorization and must be documented in A-12.
- Any artifact submitted for revision must include a completed Peer Review rubric (Section 8.4, PR-01 to PR-05) from a course peer. Self-submission of a revision without peer review documentation results in a Gate Advisory on first occurrence and a Gate Hold on second occurrence.



ADDENDUM C: REPRESENTATIVE LESSON DESIGN DOCUMENT — LESSON 1.1

The following lesson design document demonstrates how the lesson specification in Section 7.1, Table 1.1, translates into an operational lesson design artifact. This document is an example of the type of lesson-level design documentation produced during the Development phase of a full ADDIE implementation based on this blueprint. It is provided as a representative sample; individual lesson design documents for all 25 lessons would be produced as part of full course development. This document may also be used as a working reference template by course graduates in their own lesson design work within the target domain.

C.1. LESSON METADATA

FIELD	DETAIL
DOCUMENT CONTROL	Author: [Designer Name] · Date: YYYYMMDD · Version: 1.0 · Status: Draft · Review Indicator: Pending
LESSON ID	1.1
LESSON TITLE	Auditor Questions First: Training as Control vs. Content
MODULE	Module 1 — Training Systems as Internal Controls
MPI PHASE	Orientation & Activation (Lesson Level)
ESTIMATED ENGAGEMENT TIME	60–90 minutes (intensive/accelerated track); 90–120 minutes recommended for standard track to allow full discussion thread development
DELIVERY MODE	Asynchronous (LMS); xAPI completion tracking via LRS
PRIMARY ARTIFACT TARGET	A-01 Evidence Brief (initial draft, v0.1 — scaffold only; A-01 v1.0 produced in Lesson 1.3)
ENABLING OBJECTIVE SUPPORTED	EO.M1
LESSON OBJECTIVES	(LO.1.1.1) Differentiate training-as-content-delivery from training-as-internal-control using FAR 52.203-13 framing, with at least one regulatory anchor cited. (LO.1.1.2) Identify at least three questions an auditor would ask about a training completion record and explain the evidentiary gap each question exposes.
PREREQUISITE KNOWLEDGE	Functional familiarity with training records and LMS completion tracking; no prior regulatory reading assumed; Week 0 bridge completion required
REGULATORY ANCHORS	CW-01 (FAR 52.203-13) · CW-09 (OMB Circular A-123, internal controls)
HARD FAIL CONDITIONS	None at lesson level; lesson output feeds Gate 1 review in Lesson 1.3. A-01 v0.1 is a non-graded scaffold submission.
ACCESSIBILITY CODES	A11Y-C: microlearning video requires closed captions (SRT/VTT) and transcript; all LMS discussion thread interfaces must meet Revised 508/WCAG 2.0 AA; A-01 template must be a tagged, accessible document
SECURITY CODES	SEC-S: all scenarios and case excerpts use sanitized, illustrative data; no real contract numbers, system names, or CUI

C.2. LESSON CONTENT AND SEQUENCE



(RATIONALE=Instructional rationale; CHECK=Formative check):

STAGE	TIME	ACTIVITY	FORMAT	RATIONALE	CHECK
1. ACTIV- ACTION	10– 15 min	“Auditor Walks In”; scenario: Learner reads a 300-word scenario in which a DCAA auditor arrives and requests training completion documentation for the previous 12 months. Learner responds in the LMS discussion thread to three prompts: (1) What documentation currently exists? (2) What documentation is missing? (3) What is the auditor specifically looking for and why? Responses visible to enrolled peers.	LMS discussion thread; text scenario (accessible PDF)	Creates productive dissonance (Kapur, 2016): most learners will not know exactly what the auditor is looking for. This dissonance is the design intent – it is closed in Stage 2 and revisited explicitly in Lesson 1.2. Initial cognitive load is calibrated to activation, not production (Sweller, 1988).	Instructor reviews 3–5 thread responses before asynchronous debrief; no grade at this stage; responses inform lesson 1.2 vILT design
2. DEMO- NSTR- ACTION	15– 20 min	Captioned microlearning video (10–12 min): narrated, visually annotated walkthrough contrasting a completion-only training record against an audit-defensible evidence brief. Visual structure: two-column comparison (Completion Record vs. Evidence Brief); narration aligned to on-screen text. Closed captions required; transcript posted in LMS. Followed immediately by a 2-minute annotated regulatory excerpt: FAR 52.203-13(c)(2)(ii) with three annotations marking: (a) the training mandate, (b) the documentation requirement, (c) what “documented” means in an audit context.	Captioned microlearning video (cmi5/xAPI); annotated regulatory excerpt (tagged accessible PDF)	Models the target performance; regulatory excerpt grounds demonstration in the authoritative source text (RC-01); Collins et al. (1989) cognitive apprenticeship – observation and modeling phase. cmi5 completion statement captures lesson completion with timestamp (A-11 evidence).	None at this stage; xAPI completion statement captures video consumption for LRS record
3. APPLI- CATION	20– 25 min	Scaffolded first draft: Learner uses the provided A-01 template scaffold to attempt the following three fields for the notional incident reporting scenario: (1) Workflow Scope statement; (2) One Compliance Driver (identify the clause and translate it in one sentence); (3) One Evidence Output description. Learner submits draft to LMS assignment as A-01 v0.1. Template enforces RC-11 metadata fields (author, date, version).	Provided A-01 scaffold template (Word; tagged for accessibility) submitted via LMS	First production attempt; template scaffolding reduces extraneous cognitive load while requiring the core regulatory translation task (Sweller, 1988; Merrill, 2002 – application phase). This draft is not graded; it is a formative submission that allows the instructor to calibrate the Lesson 1.2 vILT session to actual learner performance.	Instructor reviews submissions asynchronously; provides brief written feedback (1–3 sentences) on each before Lesson 1.2 vILT; flags any learner who cannot distinguish a clause ID from a clause requirement
4. INTEG- RATION	10– 15 min	“Hard Fail or Not?”; classification exercise: Learner receives five short Evidence Brief excerpts (2 compliant, 2 non-compliant, 1 borderline). For each, learner must: (a) classify as compliant, non-compliant, or borderline; (b) provide a one-sentence rationale citing the specific criterion violated or met. Submitted via LMS quiz with open-text justification fields.	LMS quiz (auto-scored classification); instructor-reviewed rationale text)	Develops classification and regulatory judgment skill; targets hard-fail pattern recognition (RC-01, RC-06); retrieval practice for regulatory logic. The borderline case is intentional: it prepares learners for the judgment-under-ambiguity situations that characterize real compliance environments.	Auto-scored binary classification (learner sees immediate feedback); instructor reviews open-text rationales asynchronously; formative instructor flag if learner misclassifies both



STAGE	TIME	ACTIVITY	FORMAT	RATIONALE	CHECK
					non-compliant items
5. SYNTH- ESIS / BRIDGE	10 min	Closing reflection post: Learner posts exactly two sentences to the LMS discussion board: (1) “The most important thing an auditor would look for in our current training records is ____.”; (2) “The specific gap I will address in my artifact set is ____.”; Instructor responds to each post asynchronously within 48 hours, confirming the learner’s gap identification or providing a single corrective reframe if the gap statement is inaccurate.	LMS discussion board	Closes the lesson by requiring learners to articulate their own performance gap in operational terms, building personal relevance and goal orientation (Knowles et al., 2015). The instructor response bridges to Lesson 1.2 vILT by confirming the framing of each learner’s gap before the live session.	Instructor review only; no grade; thread responses used to set the Lesson 1.2 vILT opening scenario to the most common learner gap pattern

C.3. ACCESSIBILITY AND QA CHECKLIST

ELEMENT	ACCESSIBILITY REQUIREMENT	QA VERIFICATION METHOD
MICROLEARNING VIDEO	Closed captions (SRT/VTT format); audio description required if on-screen visual content is not fully described in narration; transcript posted as a separate accessible document in LMS	DHS Trusted Tester or GSA-approved equivalent method; verify before publishing to LMS (A-08 gate)
ANNOTATED REGULATORY EXCERPT (PDF)	Tagged PDF with correct reading order; alt-text on any graphic elements; sufficient color contrast (4.5:1 minimum for body text per WCAG 2.0 AA 1.4.3)	PDF accessibility checker (PAC 3 or Adobe Acrobat accessibility check); documented in A-08
LMS DISCUSSION THREAD INTERFACE	Keyboard-navigable; screen-reader accessible form fields; ARIA labels on interactive elements	LMS vendor accessibility conformance statement; verified and documented in A-11
A-01 SCAFFOLD TEMPLATE (WORD)	Structured heading hierarchy; no color-as-only-indicator; accessible form fields; RC-11 metadata fields do not require color interpretation	Instructor review using A-08 checklist; confirmed before distribution to learners
LMS QUIZ (CLASSIFICATION EXERCISE)	Keyboard-navigable; no time pressure that would create an accessibility barrier; open-text fields accessible to screen readers	LMS vendor conformance statement; documented in A-11

C.4. INSTRUCTOR NOTES

This lesson is engineered to front-load cognitive challenge without front-loading production burden. The “Auditor Walks In” activation is intentionally disorienting for learners who have not worked in a regulated audit environment – most will not know what the auditor is specifically looking for, and some will conflate completion records with evidence. This productive failure is a deliberate design feature (Kapur, 2016), not an oversight. Do not preemptively resolve the dissonance in Stage 1; allow learners to struggle with the three prompts. The Stage 2 demonstration closes the activation loop.

The Stage 3 scaffold submission should be reviewed by the instructor before Lesson 1.2 rather than after it. The vILT in Lesson 1.2 is most effective when the instructor has reviewed actual learner A-01 v0.1 submissions and can reference real (anonymized) examples during the live demonstration. If time does not permit pre-vILT review of all submissions,



prioritize reviewing at least 30% and select examples that represent the range of typical error patterns (over-scoping, under-citing, and metadata omission are the three most common first-attempt failures).

The Lesson 1.2 vILT debrief should explicitly revisit the Lesson 1.1 discussion thread responses – ideally projecting 2–3 anonymized examples – to close the activation-demonstration loop. Learners who do not see their initial gap hypothesis validated or corrected by the end of Lesson 1.2 frequently carry misconceptions into the Lesson 1.3 production task.

REFERENCE NOTE: Kapur, M. (2016). Examining productive failure, productive success, unproductive failure, and unproductive success in learning. *Educational Psychologist*, 51(2), 289–299.

<https://doi.org/10.1080/00461520.2016.1155457> – This reference has been incorporated into Section 12.2 as of Version 0.5.



ADDENDUM D: ARTIFACT TEMPLATE LIBRARY — A-01 THROUGH A-17

The following section provides filled representative sample templates for all 17 controlled artifacts (A-01 through A-17) in the artifact production arc. Each template illustrates the minimum viable content structure, metadata requirements, and field conventions for the corresponding artifact. These samples use the notional government contractor proxy established in Addendum A; no real organization, contract vehicle, or CUI is present. Artifact version, date, and author fields follow RC-11 and NARA naming conventions. For submission checklists and integrative scoring, see the A-17 template (D.17) at the end of this addendum.

D.1. A-01: TRAINING SYSTEM SCOPE STATEMENT AND EVIDENCE LOGIC MAP

A-01 is the foundational scope-definition artifact. It translates regulatory obligations into a bounded description of what the training system must do, who it must serve, and what evidence it must produce. Scaffold submitted as v0.1 in Lesson 1.1; accepted at Gate 1 as v1.1.

FIELD	SAMPLE ENTRY
DOCUMENT CONTROL	YYYYMMDD_A-01_v1.1_[Initials] · Author: [Name] · Gate 1 Accepted
CONTRACT REFERENCE	CPIFF Task Order #XX-XXXX; DFARS 252.204-7012 applicable; IDIQ vehicle
REGULATORY SCOPE – PRIMARY	FAR 52.203-13(c)(2)(ii): Ethics/compliance training; new employees within 90 days; annual refresher; completion records required
REGULATORY SCOPE – SECONDARY	NIST SP 800-171 Rev. 3 · 3.2.1–3.2.3: Security awareness; role-based; insider threat. CUI scope: training records if DD Form 254 present
TRAINING AUDIENCE SCOPE	All CUI-access personnel; all FAR 52.203-13 ethics-mandate roles; new hires within 90 days; annual refresher = 100% covered workforce
WORKFLOW SCOPE STATEMENT	Covers: (1) Ethics/compliance orientation (FAR 52.203-13); (2) CUI awareness (NIST SP 800-171 Rev. 3); (3) Incident reporting. Excluded: technical skills, HR orientation, OSHA (separate regulatory mandate).
PRIMARY EVIDENCE OUTPUT	Individual completion records in FedRAMP-authorized LMS; xAPI statement capture in compliant LRS; retained per FAR 4.703 (3 years minimum from contract closeout)
SECONDARY EVIDENCE OUTPUT	Enrollment rosters; assessment score records; exception/CAPA log (A-15) for threshold failures
EVIDENCE LOGIC	IF FAR 52.203-13(c)(2)(ii) requires documentation AND learner [ID] completed [Course v#] on [Date] THEN Record [ID] constitutes satisfactory compliance evidence. Hard-fail: record missing name/date/course ID/version/score = non-compliant regardless of completion status.
HARD FAIL CONDITIONS	(1) No clause cited; (2) evidence output described as ‘certificate’ without retention mechanism; (3) RC-11 metadata incomplete

D.2. A-02: REGULATORY AUTHORITY MATRIX

A-02 maps all regulatory authorities to their specific training mandate, required evidence, and satisfying artifacts. It is the master authority reference for all downstream traceability. Submitted and accepted at Gate 1 alongside A-01.

(AUTH=Authorization ID; REG.SRC.=Regulatory source; ART.=Artifacts)



AUTH	REG.SRC.	CLAUSE	TRAINING MANDATE (ABBREVIATED)	EVIDENCE REQUIRED	ART.
1000	FAR 52.203-13	(c)(2)(ii)	Written compliance/ethics program; new hire training (90 days); annual refresher; completion records	Dated completion records; program documentation	A-01, A-07, A-13
1001	DFARS 252.204-7012	(b)(2)(ii)(C)	Awareness training for personnel accessing covered defense information	Completion records; content documentation	A-01, A-07, A-12
1002	NIST SP 800-171 Rev. 3	3.2.1	Security risk awareness for all personnel	Completion logs; xAPI statement records	A-01, A-07, A-11
1003	NIST SP 800-171 Rev. 3	3.2.2	Role-based training; assigned security responsibilities	Role-based records; supervisor attestation (as applicable)	A-01, A-07, A-11
1004	NIST SP 800-171 Rev. 3	3.2.3	Insider threat awareness training	Content; completion records; awareness log	A-01, A-07, A-12
1005	Revised Section 508	36 CFR Part 1194	ICT training delivery conforms to WCAG 2.0 AA; accessible equivalent required	Accessibility conformance report; DHS Trusted Tester results	A-08
1006	FAR 4.703	(a),(b)	Training records retained 3 years minimum from final payment	Retention schedule with clause citations; storage location	A-13
1007	OMB Circular A-123	§II.B	Internal controls documentation; monitoring records	Control activity documentation; monitoring schedule	A-01, A-14, A-16
1008	Privacy Act of 1974	5 U.S.C. §552a	Protection of PII in training records; SORN determination if applicable	PIA/SORN determination; data minimization documentation	A-09, A-11
1009	FAR 52.203-13	(c)(2)(i)	Written standards of conduct; reporting mechanism; periodic ethics training	Content; reporting mechanism documentation	A-01, A-06, A-07

D.3. A-03: TRAINING SYSTEM RISK REGISTER

A-03 documents material compliance-integrity risks to the training system. A partial excerpt appears in Section 10.3. This template shows the full register structure including likelihood/impact scoring and monitoring triggers.

(ID=Risk ID; CAT.=Category; LIK.=Likelihood; IMP.=Impact; SCR.=Score; OWN.=Owner; RESID.=Residual; MONIT.=Monitoring trigger):

ID	RISK	CAT.	LIK.	IMP.	SCR.	MITIGATION	OWN.	RESID.	MONIT.
R-01	Completion records stored outside FedRAMP-authorized system; not retrievable under audit	Records	High	High	HIGH	Migrate xAPI records to FedRAMP LRS before delivery; verify in A-10 UAT; document in A-11	LMS Admin	Low	Any new storage location; annual review
R-02	A-01 scope statement lacks clause citation; auditor challenge cannot be rebutted	Traceability	Med	High	HIGH	Enforce RC-11 clause citation at Gate 1; hard-fail if no clause present	Instructor	Low	Gate 1 review; peer review flag
R-03	508 conformance not tested before delivery; complaint filed post-launch	Accessibility	Med	High	HIGH	DHS Trusted Tester assessment before launch;	ISD/A11Y	Med	Pre-delivery gate; any



ID	RISK	CAT.	LIK.	IMP.	SCR.	MITIGATION	OWN.	RESID.	MONIT.
						document in A-08 and A-10			content update
R-04	Records not retained per FAR 4.703 (3-yr min); purged at fiscal year end	Records	Low	High	MED	A-13 retention plan with FAR basis; LMS purge-block; verified in A-11	Records Mgr	Low	Annual retention audit; contract closeout
R-05	LMS auto-enrollment failure; population gap not detected	Enrollment	Med	Med	MED	Automated reconciliation report (A-11); escalation to HR on mismatch	LMS Admin	Low	Quarterly audit; new hire trigger
R-06	SME review not completed; regulatory claim incorrect post-delivery	Content	Low	High	MED	SME sign-off per Section 13.5 item (4); documented in A-12	Instructor/SME	Low	Pre-delivery gate; annual review
R-07	Regulatory amendment post-delivery; content becomes non-compliant	Regulation Change	Med	High	HIGH	Annual crosswalk review against active regulatory baseline (A-14); expedited update for material amendments	Compliance	Med (lag)	Federal Register monitoring; contract modification
R-08	CUI-adjacent content delivered on non-authorized system	Security	Low	High	HIGH	A-09 security posture completed pre-delivery; FedRAMP authorization verified (A-11)	IT Security	Low	Pre-delivery gate; any system change

D.4. A-04: REGULATORY TRACEABILITY MATRIX

A-04 provides a complete, auditable trace from each regulatory clause to training objective, assessment, evidence produced, and retention requirement. A partial excerpt appears in Section 10.4. Accepted at Gate 2 with minimum 15 trace rows, 3 edge cases, and CUI scope statement.

(ID=Trace ID; REG.SRC=Regulatory source; L.OBJECTIVE=Training/learning objective; LES.=Lesson(s); ASMT.=Assessment; R.BASIS=Retention basis; E.CASE=Edge case):

ID	REG.SRC.	CLAUSE	L.OBJECTIVE	LES.	ASMT.	EVIDENCE	R.BASIS	CUI	E.CASE
TR-001	FAR 52.203-13	(c)(2)(ii)	LO.M1: Produce A-01 scope with clause citation	1.1-1.3	A-01 v1.1 rubric RC-01-RC-11	A-01; Gate 1 record; xAPI completion	FAR 4.703: 3 yrs	Non-CUI	Learner fails Gate 1 revision → A-15 exception
TR-002	FAR 52.203-13	(c)(2)(ii)	LO.M2: Translate clause into mandate with evidence output	1.2-1.3	A-04 v1.0 RC-01	A-04 trace row; Gate 2 record	FAR 4.703: 3 yrs	Non-CUI	Clause amended post-design → expedited update per A-14
TR-003	DFARS 252.204-7012	(b)(2)(ii)(C)	LO.M2: Produce traceability row for awareness mandate	2.1-2.3	A-04 v1.0; A-07 M2 assessment	A-04 row; Module 2 assessment record	DFARS: 6 yrs (CUI record)	CUI-BASIC if with covered defense info	Scope determination required before LRS config; document in A-09



ID	REG.SRC.	CLAUSE	L.OBJECTIVE	LES.	ASMT.	EVIDENCE	R.BASIS	CUI	E.CASE
TR-004	NIST SP 800-171 Rev. 3	3.2.1–3.2.3	LO.M2: Map role-based training to workforce populations	2.2	Role-based roster; vILT attendance	Attendance; xAPI statement; role designation	Align with contract period; min FAR 4.703	CUI if linked to access logs	Role changes → enrollment update; document in A-14
TR-005	Revised Section 508	36 CFR Part 1194	LO.M4: Produce A-08 accessibility plan	4.1–4.2	A-08 v1.0 RC-09	A-08; Trusted Tester results; Gate 4 record	Duration of content use + 3 yrs	Non-CUI	Legacy content anchor → full 508 review required
TR-006	FAR 4.703	(a),(b)	LO.M5: Produce A-13 retention plan with clause citation per record type	5.1	A-13 v1.0 RC-10	A-13; Gate 5 record	Self-referential : 3 yrs from closeout	Non-CUI	Retention < regulatory min = RC-10 hard-fail
TR-007	OMB Circular A-123	§II.B	LO.M5: Produce A-16 governance architecture with RACI	5.2–5.3	A-16 v1.0; A-17 review	A-16; A-14 plan; capstone record	3 yrs from closeout	Non-CUI	Missing RACI owner = hard-fail indicator at Gate 5
TR-008	Privacy Act	5 U.S.C. §552a	LO.M4: Complete A-09 security posture with PII determination	4.2	A-09 v1.0 RC-08	A-09; PII determination memo; Gate 4 record	Duration of system operation + 3 yrs	Review: learner PII in LRS	Contractor-only system: Privacy Act applicability determined by federal agency; document in A-09
TR-009	GAGAS 2024	6.10–6.11	LO.M5: Document QA and CPE tracking (if applicable)	5.3	A-10 v1.0; A-12	A-10 QA plan; A-12 version log	FAR 4.703: 3 yrs	Non-CUI	GAGAS applicability limited: confirm with program officer
TR-010	FAR 52.203-13 + OMB A-123	Combine d	LO.M5 Capstone: Integrated A-17 demonstrates complete traceability for TR-001–TR-009	Lesson 5.5	A-17 capstone RC-01–RC-11	A-17 integrated packet; DP-06 record	Retain per most restrictive basis across constituent artifacts	Aggregate CUI determination required	A-17 missing artifact index = DP-05 hard-fail condition

D.5. A-05: CLAUSE TRANSLATION WORKSHEET

A-05 translates raw regulatory clause language into plain-language training mandates and identifies the instructional implication for each clause. It is the working reference for building A-04 and A-07. Accepted at Gate 2 alongside A-04.

(ID=Clause ID; ART.=Artifact linkage) | *(CLAUSE RAW TEXT is abbreviated):



ID	CLAUSE RAW TEXT*	PLAIN LANG. TRANSLATION	INSTRUCTIONAL IMPLICATION	ART.
FAR 52.203-13 (c)(2)(ii)	Written compliance and ethics training program; new employees within 90 days of employment; annual refresher; records maintained	Every employee must complete a documented training program covering the organization's ethics and compliance standards. New hires have 90 days. Everyone repeats annually. Completion must be recorded and kept.	Course must: (1) address the ethics standards in the contractor's written program; (2) include a new-hire track with 90-day completion window; (3) include an annual refresher; (4) produce retention-compliant completion records	A-01, A-07, A-13
DFARS 252.204-7012 (b)(2)(ii)(C)	Conduct awareness training for covered personnel on CUI requirements applicable to covered defense information	All personnel who access covered defense information must receive training on what CUI is, how it must be handled, and what the contract requires	Course must include a CUI-awareness module with specific content on CUI markings, transmission, and storage requirements under this contract; training must be documentable	A-01, A-02, A-07
NIST SP 800-171 Rev. 3 3.2.1	Ensure that personnel are aware of the security risks associated with their activities and of applicable policies, standards, and procedures	Workers must understand the specific cybersecurity threats and risks associated with their jobs, not just generic awareness	Security awareness content must be role-relevant and explicitly tied to the specific system access and CUI-handling activities of each covered role; generic awareness is insufficient	A-01, A-07, A-11
NIST SP 800-171 Rev. 3 3.2.2	Ensure that organizational personnel are adequately trained to carry out their assigned information security responsibilities	Workers must be able to actually do the security tasks required of them, not just know about them	Training for CUI-handling roles must include performance tasks (not just awareness); assessed against a performance standard; role designation must be documented	A-01, A-04, A-07
NIST SP 800-171 Rev. 3 3.2.3	Provide security awareness training on recognizing and reporting potential indicators of insider threat	Workers must know what insider threat looks like and how to report it	Insider threat module required; must include behavioral indicators and a documented reporting pathway; training distinct from general security awareness	A-01, A-04, A-07
FAR 4.703 (a)	Contractor records directly pertaining to contract performance must be retained for 3 years after final payment	Keep training records for at least 3 years after the contract is paid out	Retention plan (A-13) must specify FAR 4.703 as the legal basis; LMS must be configured to prevent premature purge; NARA naming applied to archived records	A-11, A-13
Revised Section 508 36 CFR Part 1194	Electronic and information technology used to deliver federal training must conform to applicable accessibility standards (WCAG 2.0 AA)	Every piece of training content must be accessible to people with disabilities; no exemptions for cost or difficulty	All content requires accessibility testing before delivery; A-08 plan must specify testing method; any non-conformance requires a documented remediation timeline; equivalent alternatives required	A-08, A-10
OMB Circular A-123 §II.B	Management of internal controls: documented control activities; regular assessment; corrective action for deficiencies	Training is a documented internal control; it must be systematically managed, monitored, and corrected when it fails	A-16 governance architecture documents the training control framework; A-14 monitoring plan defines the assessment cadence; A-15 defines corrective action protocol	A-14, A-15, A-16

D.6. A-06: JOB AID (COMPLIANCE GUIDANCE REFERENCE CARD)

A-06 is the performance support artifact: a quick-reference job aid designed for use at the moment of need during a compliance-relevant task. It specifies the trigger condition, required action, and evidence produced for each key compliance workflow. Accepted at Gate 3.

(R.BASIS=Regulatory basis; EVIDENCE=Evidence produced):



TRIGGER	REQUIRED ACTION	R.BASIS	TIME LIMIT	EVIDENCE	COMMON ERROR
New employee starts work	Enroll in ethics and compliance training track; confirm 90-day completion window is set in LMS; notify supervisor	FAR 52.203-13(c)(2)(i)	Enroll Day 1; complete within 90 days	Enrollment record in LMS; completion record with date; supervisor notification log	Enrolling but not tracking 90-day deadline; completion recorded but record not in compliant system
Annual refresher due date reached (per LMS schedule)	Trigger auto-enrollment in refresher track for all covered personnel; reconcile against HR roster; escalate non-completions at 30 days overdue	FAR 52.203-13(c)(2)(i)	Complete within annual window specified in P-01	LMS completion records for 100% covered roster; reconciliation report; escalation log if applicable	Assuming LMS enrollment list equals full covered population; roster drift undetected
DCAA or other auditor requests training records	Retrieve: (1) individual completion records with name, date, course ID, version; (2) course version in use at date of completion; (3) enrollment roster for period audited; (4) retention basis documentation	FAR 4.703; FAR 52.203-13	10 minutes or as directed by contracting officer	Audit response package: records set + retrieval log + A-13 excerpt + A-01 excerpt	Producing records without version history; missing records for terminated employees (still required per FAR 4.703)
Content update is required (regulation changed or content error found)	Log change in A-12 (version, date, author, rationale); route for SME review; re-publish at new version; notify enrolled population; update A-04 if clause affected	OMB A-123 §II.B; A-12 NARA protocol	Per A-14 monitoring plan or within 30 days of material regulatory amendment	A-12 version entry; SME sign-off record; updated A-04 trace rows; learner notification log	Publishing update without version increment; not notifying learners who completed the prior version
Learner fails to meet completion threshold (score below 80% or attendance gap)	Log exception in A-15; notify supervisor and HR; initiate CAPA within 5 business days; document remediation outcome	FAR 52.203-13; A-15 CAPA protocol	5 business days for CAPA initiation; remediation timeline per A-15	A-15 exception record; CAPA plan; remediation completion record	Treating threshold failure as administrative error rather than compliance gap; not logging in A-15
New contract modification adds or removes training requirement	Review A-02 against modification; update A-04 trace matrix; update A-01 scope if affected; document rationale in A-12	FAR 52.243 series (changes clause); OMB A-123	Within 30 days of modification effective date or as specified by contracting officer	Updated A-02; updated A-04; A-12 change entry; notification to training function	Not reviewing A-04 traceability matrix when scope changes; scope drift undetected until audit
Accessibility complaint received regarding training content	Log incident; initiate Trusted Tester (or equivalent) review of identified content; produce remediation plan with timeline; document corrective action completion	Revised Section 508; A-08 plan; A-15 protocol	Acknowledge within 5 business days; remediation timeline per finding severity	Complaint log; Trusted Tester review results; remediation plan; A-08 updated; A-15 exception record	Treating 508 complaint as IT ticket rather than compliance event; no documentation

D.7. A-07: ASSESSMENT PLAN

A-07 specifies the complete assessment architecture: assessment type, performance threshold, completion evidence, and remediation pathway for each graded element. It ensures every assessment produces audit-defensible evidence. Accepted at Gate 3.



(A.ID=Assessment ID; M.=Module; TYPE=Assessment type; C.THRESHOLD=Completion threshold; EVIDENCE=Evidence produced; ART.=Linked Artifacts):

A.ID	M.	TYPE	DESCRIPTION	C.THRESHOLD	EVIDENCE	REMEDATION PATH.	ART.
ASMT-01	M1	Artifact Submission – A-01 v1.1	Gate 1 acceptance review of Training System Scope Statement against RC-01 through RC-11 rubric	All RC criteria ≥ 3 (1–4 scale); no hard-fail condition	A-01 v1.1 document; instructor rubric record with scores; Gate 1 acceptance log	One revision cycle: instructor feedback within 72 hrs (std) / 48 hrs (acc); second revision requires instructor conference; A-12 updated for all revisions	A-01, A-12, A-15
ASMT-02	M2	Artifact Submission – A-04 v1.0	Gate 2 acceptance review of Traceability Matrix: minimum 15 trace rows, 3 edge cases, CUI scope statement	15+ rows; 3+ edge cases; CUI scope present; RC-01 ≥ 3 ; no traceability hard-fail	A-04 v1.0; instructor rubric; Gate 2 record	One revision cycle; traceability gap hard-fail triggers instructor review before revision permitted	A-04, A-12, A-15
ASMT-03	M3	Artifact Submission – A-06 + A-07 v1.0	Gate 3 acceptance of Job Aid and Assessment Plan	RC-01 through RC-11 ≥ 3 ; no RC-01 or RC-06 hard-fail	A-06 and A-07 documents; instructor rubric; Gate 3 record	Revision cycle; RC-01 hard-fail triggers instructor SME consultation	A-06, A-07, A-12, A-15
ASMT-04	M4	Artifact Submission – A-08 + A-09 + A-10 + A-11	Gate 4 acceptance of Accessibility Plan, Security Posture, QA/UAT Plan, LMS/LRS Configuration	RC ≥ 3 all four artifacts; no 508 or CUI scope hard-fail	Four artifact documents; instructor rubric per artifact; Gate 4 record	508 hard-fail triggers Section 11.3 protocol review; instructor review required before resubmission	A-08, A-09, A-10, A-11, A-12, A-15
ASMT-05	M5	Artifact Submission – A-12 through A-16	Gate 5 acceptance of Change Log, Retention Plan, Monitoring Plan, Exception Protocol, Governance Architecture	All RC ≥ 3 ; no missing RACI owner; no retention period shorter than regulatory minimum	Five artifact documents; instructor rubric; Gate 5 record	One revision cycle per artifact; Gate 5 hard-fail requires instructor escalation conference	A-12, A-13, A-14, A-15, A-16
ASMT-06	M5	Capstone – A-17 Integrated Package	DP-06 review: complete integrated packet with A-01 through A-16 indexed, final, and present	RC-01–RC-11 ≥ 3 on all criteria; no hard-fail; all 16 prior artifacts present and indexed	A-17 integrated packet; artifact index; DP-06 acceptance record; completion certificate issued	One revision cycle; resubmission within 5 business days; second revision by exception only (instructor conference required)	A-17, all prior
ASMT-F01	All	Formative – Lesson Discussion Threads	Weekly discussion board posts per Addendum C pattern (activation + synthesis bridge)	Completion (post present + instructor-responded); no grade	xAPI completion statement; instructor response log	None (formative); instructor flags patterns for vILT calibration	A-11 (xAPI)
ASMT-F02	All	Formative – Peer Review	Peer review rubric (Section 8.4, PR-01–PR-05) on each artifact draft	Rubric submitted before gate deadline; no score threshold	Peer review rubric document in LMS; linked to A-12 revision record	Not submitting peer review before gate = Gate Advisory (first) / Gate Hold (second) per B.3 rule 5	A-12

D.8. A-08: ACCESSIBILITY VALIDATION PLAN



A-08 specifies the accessibility testing approach, conformance standard, responsible parties, and documentation requirements for all course content. A partial excerpt appears in Section 10. The full template includes pre-publication and post-launch validation requirements. Accepted at Gate 4.

(CONTENT=Content element; A11Y REQ= A11Y requirement; T.METHOD=Testing method; R.PARTY=Responsible party; PASS=Pass criterion; DOC.=Documentation; REMED.=Remediation if failed):

CONTENT	A11Y REQ.	TST.METHOD	R.PARTY	PASS	DOC.	REMED.
Microlearning video (all modules)	Closed captions (SRT/VTT); audio description if visual content not narrated; transcript posted in LMS	DHS Trusted Tester (AT-01 caption test); manual review of transcript accuracy	ISD / A11Y Lead	Captions: ≥98% accuracy per DCMP standard; transcript present and downloadable	Trusted Tester result log; caption file version history in A-12	Re-caption with corrected SRT; re-test; document in A-15 if delay causes delivery hold
Annotated regulatory excerpts (PDF)	Tagged PDF with correct reading order; alt-text on graphics; contrast ≥4.5:1 for body text (WCAG 2.0 AA 1.4.3)	PAC 3 or Adobe Acrobat accessibility check; manual screen reader spot check	ISD	Zero PDF accessibility check errors (critical); contrast passes 1.4.3	PAC 3 result export (PDF); A-08 annotation	Remediate with tagged PDF; re-check before release
LMS discussion thread / quiz interfaces	Keyboard-navigable; screen-reader accessible form fields; ARIA labels on interactive elements	LMS vendor accessibility conformance report (ACR); independent spot check with NVDA or JAWS	LMS Admin + ISD	Vendor ACR present and addresses all WCAG 2.0 AA criteria; critical fails resolved	ACR document version; A-11 configuration record	Log gap in A-15; request vendor remediation timeline; implement accessible workaround if available
A-01 and all artifact scaffold templates (Word)	Structured heading hierarchy (H1→H3 only); no color-as-only-indicator; accessible form fields	Manual review per WCAG 2.0 AA 1.3.1 (info structure), 1.4.1 (color not only indicator)	ISD	No color-only instruction; proper heading structure present; form fields labeled	Checklist in A-08; record in A-12 when template version changes	Restructure heading levels; re-publish template at new version; notify learners
All LMS SCORM/cmi5 packages	cmi5 completion statement conforms to ADL cmi5 spec; keyboard navigable; no mouse-only interaction required	cmi5 conformance check (ADL test suite or equivalent); keyboard navigation test	ISD / LMS Admin	ADL conformance pass; keyboard navigation: all interactive elements reachable	cmi5 test log; A-10 UAT record	Fix authoring tool output settings; re-publish at version increment; A-12 entry
vILT sessions (synchronous)	Captioned live or near-real-time via platform caption service; interpreter available on request (minimum 10 days advance notice); recording captioned before posting	Platform caption accuracy spot check; post-session caption accuracy review on recording	Instructor / Coordinator	Live captions: ≥98% accuracy spot check; recorded session captioned and posted within 48 hours	Session caption log; A-11 (LMS/LRS config for recordings)	Escalate to platform support; manual caption correction before posting recording
508 baseline	Complete review of all content elements	Consolidated review per DHS Trusted	ISD Lead	No open critical findings (Level 1)	A-08 pre-delivery	Any Level 1 finding = delivery hold;



CONTENT	A11Y REQ.	TST.METHOD	R.PARTY	PASS	DOC.	REMED.
review – pre-delivery gate	(rows above) before first learner enrollment	Tester methodology; all findings logged in A-10 UAT plan		severity) at delivery; all non-critical findings have documented remediation plan	sign-off log; A-10 UAT results; Section 13.5 pre-delivery gate item	remediate before learner access granted

D.9. A-09: SECURITY POSTURE STATEMENT

A-09 establishes the CUI scope determination, system authorization status, data handling requirements, and security controls applicable to the training system. It satisfies the pre-delivery security review requirement in Section 13.5 item (6) and informs LMS/LRS configuration in A-11. Accepted at Gate 4.

FIELD	SAMPLE ENTRY
DOCUMENT CONTROL	YYYYMMDD_A-09_v1.0_[Initials] · Author: [Name] · Gate 4 Accepted
CUI SCOPE DETERMINATION	Training content: does not itself constitute CUI. Learner records (name, ID, score, timestamp): review DD Form 254 and contract for CUI designation. Determination: if learner records stored with covered defense information in same system, CUI-BASIC handling applies to learner records. Interim determination: NON-CUI pending DD Form 254 review. Memo of determination attached as Appendix to A-09.
SYSTEM AUTHORIZATION STATUS	LMS: [Vendor Name] · FedRAMP Moderate Authorized · ATO effective date: YYYYMMDD · ATO expiration: YYYYMMDD · CSP: [Cloud Service Provider] · Agency Sponsoring ATO: [Agency]. LRS: [Vendor Name] · FedRAMP Authorized at same or higher baseline · ATO status same as above. Verification: FedRAMP marketplace listing confirmed YYYYMMDD.
CONTENT DELIVERY PLATFORM	Authoring tool output (cmi5/SCORM): served through LMS only; no direct learner access to source files. PDF job aids: distributed via LMS with access controls. No content stored in non-authorized SharePoint or public-facing repository.
DATA MINIMIZATION	Learner PII collected: name, employee ID, email, training completion date, assessment score. No SSN, financial data, or health information collected. PII is the minimum necessary for FAR 4.703 retention compliance. Data minimization review completed: [Date]. Retention schedule per A-13.
PRIVACY ACT DETERMINATION	System of Records Notice (SORN) applicability: if training records are maintained in a federal system of records, SORN required. Contractor-maintained records: Privacy Act applicability determined by sponsoring federal agency. Determination memo required from Contracting Officer's Representative (COR) before delivery. Status: [Pending COR response / COR determination received YYYYMMDD: Non-applicable / SORN #XXXXX applies].
INCIDENT RESPONSE PROTOCOL	If breach of learner PII or CUI-designated training records suspected: (1) Notify IT security within 1 hour of discovery; (2) Log incident in A-15; (3) Notify Contracting Officer within 72 hours per DFARS 252.204-7012(c) (if CUI involved); (4) Preserve system state; (5) Engage A-14 monitoring plan breach response pathway.
PRE-DELIVERY SECURITY GATE	All items above must be resolved (or have documented determination) before first learner enrollment. Section 13.5 item (6) sign-off required. Security posture review documented in A-10 UAT pre-delivery checklist.
OPEN ITEMS / EXCEPTIONS	[List any items not resolved at time of A-09 submission; each must have an owner, resolution date, and impact determination. No open items at delivery.]



D.10. A-10: QUALITY ASSURANCE AND USER ACCEPTANCE TESTING (QA/UAT) PLAN

A-10 specifies the QA and UAT testing protocol for all course content and systems before learner delivery. It integrates 508 accessibility results (A-08), LMS configuration verification (A-11), and security review (A-09) into a unified pre-delivery checklist. Accepted at Gate 4.

(ID=Test ID; PASS=Pass criterion; WHO=Testing party; NOTES/REF=Notes & remediation references):

ID	CATEGORY	TEST CONDITION	PASS	WHO	RESULTS	DATE	NOTES/REF.
QA-01	Content Accuracy	All regulatory citations in course content verified against current version of cited source (FAR, DFARS, NIST, Section 508)	Zero unverified or outdated citations at delivery; SME sign-off per Section 13.5 item (4)	SME + ISD	PASS / FAIL / DEFER	YYYY MMDD	If DEFER: document reason and target resolution date in A-12
QA-02	Content Accuracy	All A-01 through A-17 template fields tested for correct labeling, RC metadata alignment, and NARA naming convention conformance	100% of templates reviewed; no field label mismatch with RC criteria	ISD	PASS / FAIL	YYYY MMDD	
QA-03	LMS – Enrollment	Auto-enrollment workflow tested against pilot population (minimum 5 test accounts); enrollment records appear in LMS within 24 hours of trigger	100% test enrollment success; records present within 24 hours	LMS Admin	PASS / FAIL	YYYY MMDD	If FAIL: document in A-15; escalate to LMS vendor
QA-04	LMS – xAPI/cmi5	xAPI completion statement captured in LRS for each test learner; statement includes: actor, verb (completed), object (course ID + version), timestamp, result (score)	100% of test completions produce conformant xAPI statements; retrievable via LRS query	LMS Admin + ISD	PASS / FAIL	YYYY MMDD	If FAIL: xAPI statement schema review; re-test before delivery
QA-05	LMS – Reporting	Completion report generated for test population; exports to CSV/XLSX; includes all required fields (name, ID, course, date, score, version)	Report generates successfully; all required fields present; export functional	LMS Admin	PASS / FAIL	YYYY MMDD	
QA-06	LMS – Retention Block	Purge protection tested: test records cannot be deleted before retention period threshold (FAR 4.703 basis)	Purge attempt blocked or flagged by LMS; documented in A-11 config record	LMS Admin	PASS / FAIL	YYYY MMDD	If purge block not available: compensating control required; document in A-09 and A-13
QA-07	Accessibility – Video	All module videos have accurate captions (SRT/VTT) and downloadable transcript in LMS	DHS Trusted Tester AT-01 pass; transcript download confirmed	A11Y Lead	PASS / FAIL	YYYY MMDD	See A-08 row 1
QA-08	Accessibility – PDF	All PDF job aids and excerpts pass PAC 3 accessibility check (zero critical errors)	PAC 3: zero Level 1 errors; contrast passes 1.4.3	A11Y Lead	PASS / FAIL	YYYY MMDD	See A-08 row 2
QA-09	Accessibility – LMS Interface	Discussion board, quiz, and submission interfaces are keyboard navigable and screen-reader accessible	Independent keyboard navigation test: all interactive elements reachable; no keyboard trap	A11Y Lead + ISD	PASS / FAIL	YYYY MMDD	See A-08 row 3



ID	CATEGORY	TEST CONDITION	PASS	WHO	RESULTS	DATE	NOTES/REF.
QA-10	Security	FedRAMP authorization confirmed for LMS and LRS; ATO not expired	Marketplace confirmation printout; ATO expiration date > delivery date	IT Security	PASS / FAIL	YYYY MMDD	See A-09
QA-11	Records Retention	Records retention configuration in LMS matches A-13 retention schedule for all record types	A-11 config record and A-13 retention schedule cross-verified; no mismatch	LMS Admin + Records Mgr	PASS / FAIL	YYYY MMDD	
QA-12	Pre-Delivery Gate	All QA-01 through QA-11 tests passed; all open items from A-08 and A-09 resolved or have documented exception with impact determination	Zero open critical items; exceptions documented in A-15 with owner and resolution date	ISD Lead + Instructor	PASS / FAIL	YYYY MMDD	Section 13.5 sign-off gate. FAIL = delivery hold.

D.11. A-11: LMS/LRS CONFIGURATION SPECIFICATION

A-11 documents the required configuration for the Learning Management System and Learning Record Store, including FedRAMP authorization verification, xAPI/cmi5 settings, retention configuration, and access controls. It is the authoritative technical reference for delivery infrastructure. Accepted at Gate 4.

FIELD	SAMPLE ENTRY
DOCUMENT CONTROL	YYYYMMDD_A-11_v1.0_[Initials] · Author: [Name] · Gate 4 Accepted
LMS PLATFORM	[Vendor Name and Version] · FedRAMP Moderate Authorized (ATO effective YYYYMMDD; expires YYYYMMDD) · CSP: [Cloud Service Provider] · GovCloud deployment: [Yes/No] · URL: [LMS URL] · Admin contact: [Name, email]
LRS PLATFORM	[Vendor Name and Version] · FedRAMP Authorized at same or higher baseline as LMS · xAPI conformance level: xAPI 1.0.3+ · ADL cmi5 conformance: [Yes/Version] · URL: [LRS endpoint] · Admin contact: [Name, email]
CONTENT PACKAGING STANDARD	Primary: cmi5 (ADL specification) for all new content. Acceptable fallback: SCORM 1.2 for legacy content pending re-authoring. SCORM 2004 3rd Edition acceptable. Raw HTML5 not acceptable for compliance tracking without xAPI wrapper.
xAPI STATEMENT SCHEMA	Required statement fields per record: (1) Actor: learner name + email (mbox or account); (2) Verb: ADL vocabulary (completed, passed, failed, attempted); (3) Object: course activity ID + version + name; (4) Result: score.scaled, score.raw, completion=true/false, success=true/false; (5) Context: registration ID, parent activity (module); (6) Timestamp: ISO 8601 UTC. Statements with missing actor, verb, or timestamp = non-compliant xAPI record.
COMPLETION THRESHOLD CONFIG	LMS completion trigger: score ≥80% on graded assessment OR cmi5 'completed' + 'passed' verbs both present in LRS. Manual override by instructor requires documented rationale in A-12. Completion threshold must match A-07 ASMT table.
ENROLLMENT CONFIGURATION	Auto-enrollment triggers: new employee onboarding (Day 1); annual refresher (anniversary date or fixed cohort cycle per P-01); role change to CUI-access role (within 5 business days). Enrollment source: HR system sync. Reconciliation report: monthly. Escalation trigger: enrollment list differs from HR roster by ≥1 person.



FIELD	SAMPLE ENTRY
RECORDS RETENTION CONFIGURATION	LMS purge protection: completion records cannot be deleted by any user role until retention period expiration. Retention period basis: FAR 4.703 (3 years from contract closeout). Records exempt from purge: any record associated with a named individual under CAPA/exception (A-15). Configuration documented in A-13. Audit log of any delete attempt retained permanently.
PRIVACY / PII CONFIG	PII fields collected: name, employee ID, email, completion date, score. No SSN, financial data, or health data collected or stored in LMS. Data minimization enforced at enrollment form level. User export restricted to LMS Admin role only. Export events logged.
ACCESS CONTROL	Admin roles: LMS Admin (full access); Instructor (grade view, submission review, no record delete); Learner (own records only; no peer record visibility). Role assignment requires supervisor approval. Role change logged. No shared accounts.
BACKUP AND RECOVERY	Daily automated backup to FedRAMP-authorized storage. Recovery time objective (RTO): 4 hours. Recovery point objective (RPO): 24 hours. Backup test documented annually. Backup location disclosed in A-09.
CONFIGURATION VERIFICATION	Configuration verified against this A-11 specification in A-10 QA-03 through QA-12. Any configuration change after Gate 4 acceptance requires A-12 version entry and re-verification of affected A-10 QA items before additional learner enrollment.

D.12. A-12: CHANGE LOG AND VERSION HISTORY

A-12 is the authoritative version history for all controlled artifacts in the training system. Every revision to any artifact (A-01 through A-17) and any course content object requires an A-12 entry. NARA naming convention applied throughout. First entry created at course design initiation; maintained throughout the course lifecycle.

(ID=Entry ID; CHANGE=Artifact or object changed; V→V=Versions where change occurred; RATIONALE=Regulatory or compliance rationale)

ID	CHANGE	V→V	DATE	AUTHOR	SUMMARY	RATIONALE	APPROVER	STATUS
A12-001	A-01 Training System Scope Statement	v0.1 → v1.0	YYYYM MDD	CAS	Initial scaffold submission for Lesson 1.1 production task. Regulatory scope fields populated; evidence logic drafted.	Gate 1 formative submission; supports FAR 52.203-13(c)(2)(ii) traceability development	Instructor (formative)	Submitted
A12-002	A-01	v1.0 → v1.1	YYYYM MDD	CAS	Incorporated instructor feedback: added clause citation to evidence logic field; clarified CUI exclusion rationale; corrected RC-11 metadata.	Required for Gate 1 hard-fail resolution: RC-11 metadata was incomplete	Instructor	Accepted – Gate 1
A12-003	A-04 Traceability Matrix	v0.1 → v1.0	YYYYM MDD	CAS	Initial submission for Gate 2: 17 trace rows covering A-02 authority matrix; 3 edge cases documented; CUI scope statement added.	FAR 4.703, DFARS 252.204-7012, NIST SP 800-171 Rev. 3 trace rows complete	Instructor	Accepted – Gate 2
A12-004	A-07 Assessment Plan	v0.1 → v1.0	YYYYM MDD	CAS	Initial submission: 8 assessment entries (ASMT-01 through ASMT-06 + F01, F02); completion thresholds set at 80%; xAPI evidence specified.	RC-06 evidence classification requirement; supports FAR 52.203-13 completion record standard	Instructor	Accepted – Gate 3



ID	CHANGE	V→V	DATE	AUTHOR	SUMMARY	RATIONALE	APPROVER	STATUS
A12-005	Course Video – Module 1, Lesson 1.1	v1.0 → v1.1	YYYYM MDD	CAS	Caption correction: 12 errors in original SRT file corrected per DHS Trusted Tester AT-01 review (QA-07 initial fail).	Section 508 / WCAG 2.0 AA conformance; DHS Trusted Tester finding	ISD Lead	Published
A12-006	A-09 Security Posture	v0.1 → v1.0	YYYYM MDD	CAS	CUI scope determination memo received from COR (dated YYYYMMDD): training records non-CUI. FedRAMP LMS ATO confirmed. Privacy Act inapplicable (contractor system only, per COR determination).	DFARS 252.204-7012; OMB A-123; Pre-delivery gate requirement	Instructor + IT Security	Accepted – Gate 4
A12-007	A-01	v1.1 → v1.2	YYYYM MDD	CAS	Annual review: updated contract reference to reflect contract modification #3 (YYYYMMDD). No change to regulatory scope.	OMB A-123 §II.B annual monitoring requirement; A-14 trigger: contract modification	Instructor	Current
A12-008	Course Video – Module 4, Lesson 4.1	v1.0 → v1.1	YYYYM MDD	CAS	Content update: corrected NIST SP 800-171 revision reference from Rev. 2 to Rev. 3 following final publication of Rev. 3 (YYYYMMDD).	Regulatory accuracy: NIST SP 800-171 Rev. 3 effective; material content error	SME + ISD Lead	Published

D.13. A-13: RECORDS RETENTION PLAN

A-13 establishes the legally-grounded retention schedule for all training system records. Every record type is mapped to its specific regulatory retention basis, minimum retention period, storage location, and destruction procedure. Accepted at Gate 5.

(TYPE=Record type; DESC.=Description; R.BASIS=Regulatory basis; R.P.MIN.=Minimum retention period time; STR.LOC.=Storage location; ACCESS=Access controls; DESTR.PR.=Destruction procedure; NARA-F=NARA naming convention format):

TYPE	DESC.	R.BASIS	R.P.MIN.	STR.LOC.	ACCESS	DESTR.PR.	NARA-F
Individual Training Completion Record	Name, employee ID, course ID, version, completion date, score, xAPI statement ID	FAR 4.703(a)	3 years from contract final payment	FedRAMP-authorized LRS (primary); LMS completion record (secondary)	LMS Admin (full); Instructor (read-only); Learner (own record only); DCAA (read on demand)	Scheduled deletion by LMS Admin after retention expiration; deletion event logged in A-12; confirmation to Records Manager	YYYYMMDD_CompRecord_[EmployeeID]_[CourseID]_v[#]
Course Enrollment Roster	List of enrolled learners per course, version, and period; enrollment date per learner	FAR 4.703(a); FAR 52.203-13(c)(2)(ii)	3 years from contract final payment	LMS admin export archive; SharePoint GCC (secondary backup)	LMS Admin only for export; read-only for compliance review	Same as above; batch deletion by cohort year	YYYYMMDD_Roster_[CourseID]_[Period]_v[#]



TYPE	DESC.	R.BASIS	R.PMIN.	STR.LOC.	ACCESS	DESTR.PR.	NARA-F
Peer Review Records (A-07 ASMT-F02)	Completed peer review rubric per artifact per learner; linked to A-12 revision record	OMB A-123 §II.B (internal control documentation)	3 years from course completion	LMS assignment repository	Instructor and LMS Admin	Deletion per course cohort retention schedule	YYYYMMDD_PeerReview_[LearnerID]_[ArtifactID]_v[#]
Exception and CAPA Records (A-15)	Log of threshold failures, exceptions, and corrective action outcomes	FAR 52.203-13(c)(2)(ii) (required program integrity); OMB A-123	3 years from contract final payment; CAPA records with unresolved findings: retain until resolution + 3 years	LMS Admin secure folder; SharePoint GCC	LMS Admin + Instructor + Compliance Lead	Deletion only after resolution confirmed and retention period met	YYYYMMDD_A-15_[ExceptionID]_v[#]
vILT Session Recordings	Recordings of synchronous workshop sessions; captioned before posting	Revised Section 508 (retained in accessible format for duration of use)	3 years from course last delivery; earlier destruction if recording is replaced by updated version	LMS media library (FedRAMP-authorized)	LMS Admin + Instructor + enrolled learners	Deletion upon replacement by updated version OR after retention period; document in A-12	YYYYMMDD_vILT_[ModuleID]_[SessionDate]_v[#]
A-01 through A-16 Accepted Artifact Documents	All learner-produced and instructor-accepted artifact documents (final accepted versions only)	OMB A-123 (evidence of internal control activities); FAR 4.703 (contract records)	3 years from contract final payment	SharePoint GCC (instructor archive); learner portfolio repository (if separate)	Instructor (archive); Learner (own record)	Deletion per retention schedule; A-12 entry required for any artifact destruction	YYYYMMDD_[ArtifactID]_v[#]_[LearnerInitials]
A-17 Integrated Capstone Package	Complete final capstone submission (all artifacts + index + RC scoring record)	OMB A-123; FAR 4.703; basis of course completion credential	3 years from contract final payment; portfolio abstract: retain for 5 years (alumni record)	SharePoint GCC (instructor archive); learner portfolio (learner copy)	Instructor + Learner (own record) + Records Manager	Per retention schedule; A-12 entry; notify learner before destruction of their copy	YYYYMMDD_A-17_Capstone_v[#]_[LearnerInitials]
Governance and Monitoring Records (A-14, A-16)	RACI, monitoring schedule, audit response logs, governance review records	OMB A-123 §II.B; FAR 52.203-13(b) (ongoing program documentation)	3 years from final contract payment; governance documents: retain for life of training program + 3 years	SharePoint GCC (compliance archive)	LMS Admin + Compliance Lead + Instructor	Destruction only after program lifecycle end + retention period met	YYYYMMDD_[A-14 or A-16]_[Review period]_v[#]



D.14. A-14: MONITORING AND AUDIT RESPONSE PLAN

A-14 establishes the monitoring cadence, audit response protocol, and trigger conditions for the training system’s ongoing compliance posture. It operationalizes the internal control monitoring requirements of OMB Circular A-123. Accepted at Gate 5.

(*FREQ.*=Frequency; *R.PARTY*=Responsible party; *EVIDENCE*=Evidence produced):

MONITORING ACTIVITY	FREQ.	TRIGGER	R.PARTY	EVIDENCE	ESCALATION PATHWAY
Enrollment reconciliation: compare LMS enrollment list against HR roster	Monthly	New hire onboarding; role change to CUI-access role; termination	LMS Admin	Reconciliation report with discrepancy log; A-12 entry if discrepancy found	Discrepancy ≥1 person: notify HR and Instructor within 24 hours; resolve within 5 business days; document in A-15 if unresolved
Completion rate monitoring: flag any learner approaching 90-day deadline without completion (new hire)	Weekly (automated LMS report)	90-day window within 14 days; overdue by any duration	LMS Admin	Pending completion report; supervisor notification log	Overdue (day 1+): notify supervisor; overdue (day 30+): escalate to Compliance Lead; document in A-15 after 30 days
Annual refresher completion audit: verify 100% covered population completes within annual window	Annual (90 days after window opens)	Annual refresher window opens	LMS Admin + Instructor	Annual completion audit report; list of incomplete records with status	Any incomplete at window close: escalate to supervisor; CAPA per A-15 if unresolved within 30 days
Regulatory baseline review: compare all A-02 authorities against current published version of each cited regulation	Annual (Q1) + on-demand	Federal Register DFARS/FAR rule publication; NIST SP 800-171 or 508 update; contract modification	ISD Lead + SME	Regulatory review log; A-02 version comparison; A-12 entry for any changes; expedited content update ticket if material change found	Material regulatory change: expedited content update within 30 days; non-material: include in next scheduled review; document rationale in A-12
Retention compliance audit: verify no records have been deleted or are missing from LMS/LRS	Annual	Contract closeout trigger; any LMS system migration	Records Manager + LMS Admin	Retention audit report; A-13 cross-reference; A-12 entry	Any premature deletion: escalate to Contracting Officer; document in A-15; assess impact on audit posture
508 content review: re-verify accessibility of any content updated during the year	Annual + on-demand	Content update or content addition	A11Y Lead + ISD	A-08 updated version; A-10 QA re-run for affected elements	Any new Level 1 finding: delivery hold for affected content; remediate before re-enrollment
Audit response drill: simulate DCAA records request; verify 10-minute retrieval target	Annual (scheduled)	Actual audit notification	LMS Admin + Instructor	Drill log: records retrieved, time to retrieve, completeness check	If retrieval exceeds 10 minutes or records are incomplete: root cause analysis; A-15 exception; A-11 config review
Governance architecture review: verify RACI assignments are current; update for personnel changes	Annual	Personnel change affecting RACI role; contract modification	Compliance Lead	Updated A-16 RACI; A-12 entry	Any unassigned RACI role: fill within 10 business days; document in A-12



AUDIT RESPONSE PROTOCOL (A-14, Section 2): The following sequence governs the organizational response to an actual or anticipated audit request concerning the training system.

(S=Step #; R.PARTY=Responsible party; REQ.DOCS.=Required documentation):

S	ACTION	R.PARTY	TIME LIMIT	REQ.DOCS.
1	Receive and log audit request; identify scope (specific individuals, time period, courses)	Compliance Lead	Within 1 business hour	Audit request log entry; scope confirmation with auditor or contracting officer
2	Initiate LMS records retrieval: run completion report for specified scope; export xAPI statements from LRS for same scope	LMS Admin	Within 4 hours of Step 1	Completion report (CSV/XLSX); xAPI statement export; retrieval timestamp log
3	Verify record completeness against enrollment roster for specified period	Records Manager + LMS Admin	Within 4 hours of Step 1	Completeness check log; any gap identified and documented
4	Assemble audit response package: (1) completion records; (2) enrollment roster; (3) A-01 scope excerpt; (4) A-13 retention basis excerpt; (5) A-02 regulatory authority for each cited clause	Compliance Lead	Within 10 minutes of Step 2	Audit response package index; package transmitted with cover transmittal letter
5	If gap or incomplete record identified: document in A-15 immediately; brief Contracting Officer if gap may affect audit outcome; do not represent gap as satisfied	Compliance Lead	Immediately upon ID	A-15 exception record; contracting officer notification log if applicable
6	Post-audit debrief: document any auditor findings; update A-14 monitoring plan if finding reveals monitoring gap; update A-15 with outcome	Compliance Lead + Instructor	Within 5 business days of audit close	A-14 debrief entry; A-15 outcome record; A-12 entry if any artifact updated in response

D.15. A-15: EXCEPTION AND CORRECTIVE ACTION PROTOCOL (CAPA)

A-15 logs all threshold failures, compliance exceptions, and corrective actions in the training system. Every gate hard-fail, enrollment gap, 508 finding, and audit response gap must be documented in A-15 with a CAPA plan and resolution record. Maintained throughout the course lifecycle; submitted as a draft at Gate 3 and accepted as final at Gate 5.

(ID(T)=Exception ID (type); DAT.=Date identified; DET.BY.=Detected by; IMPACT=Regulatory/Gate impact; CAPA=CAPA Plan; WHO=Owner; TDAT.=Target resolution date; RDAT.=Actual resolution date):

ID(T)	DAT.	DESCRIPTION	DET.BY	IMPACT	CAPA	WHO	TDAT.	RDAT.	STATUS
EXC-001 (Gate Hard-Fail)	YYY YMM DD	A-01 v1.0 submitted without any clause citation. RC-11 metadata incomplete. Gate 1 hard-fail triggered.	Instructor (Gate 1 review)	FAR 52.203-13 traceability gap; Gate 1 not cleared until resolved	Instructor provided targeted feedback within 24 hours. Learner revised A-01 with clause citation and completed RC-11 fields. Resubmission reviewed and accepted as v1.1.	Instructor	YYYY MMD D	YYYYM MDD	Resolved – Gate 1 Accepted (A-01 v1.1). A-12 entry A12-002 logged.



ID(T)	DAT.	DESCRIPTION	DET.BY	IMPACT	CAPA	WHO	TDAT.	RDAT.	STATUS
EXC-002 (Enrollment Gap)	YYY YMM DD	HR roster audit: 2 employees in CUI-access roles not enrolled in LMS. Enrollment gap of 14 days.	LMS Admin (monthly reconciliation)	NIST SP 800-171 Rev. 3 3.2.1: training not documented for 2 covered personnel	Enrolled both employees immediately; set 90-day completion window. Notified Compliance Lead. Notified supervisor. Root cause: HR onboarding system sync failed for both employees; sync trigger corrected.	LMS Admin + HR	YYYY MMD D	YYYYM MDD	Resolved – both employees enrolled and 90-day windows set. HR sync corrected. A-12 entry logged.
EXC-003 (508 Finding)	YYY YMM DD	DHS Trusted Tester (QA-07): Module 2 video captions contain 23 errors including 6 wrong-name substitutions. AT-01 fail.	A11Y Lead (QA-07)	Revised Section 508; delivery hold until resolved	Captioning vendor notified; corrected SRT file produced; re-reviewed by A11Y Lead; published as v1.1. QA-07 re-run: PASS.	A11Y Lead + ISD	YYYY MMD D	YYYYM MDD	Resolved – Module 2 video v1.1 published. A-08 updated. A-12 entry A12-005 logged.
EXC-004 (Threshold Failure)	YYY YMM DD	Learner [ID redacted] scored 62% on Module 3 assessment (ASMT-03). Below 80% threshold. Second attempt also below threshold (71%).	Instructor (LMS grade report)	FAR 52.203-13(c)(2)(ii) completion not satisfied until threshold met	Instructor notified supervisor. Learner offered one-on-one instructor consultation. Learner completed targeted review of A-06 Job Aid trigger conditions and re-attempted assessment.	Instructor	YYYY MMD D	YYYYM MDD	Resolved – third attempt: 84%. Completion record updated. Supervisor notified. A-12 entry logged.
EXC-005 (Regulatory Change)	YYY YMM DD	NIST SP 800-171 Rev. 3 published (final). Material change from Rev. 2: Section 3.2.3 (insider threat) requirements expanded. Module 4 content references Rev. 2 language.	ISD Lead (annual regulatory review, A-14)	Material content error: cited clause language outdated post-Rev. 3 publication	Expedited content review. Module 4 Lesson 4.1 video updated (A-12 entry A12-008). A-04 trace rows TR-004 and TR-005 updated. A-02 updated. Learners who completed under Rev. 2 notified and offered supplemental briefing.	ISD Lead + SME	YYYY MMD D	YYYYM MDD	Resolved – all content updated to Rev. 3 references. Affected learners briefed. A-02, A-04, A-12 updated.

D.16. A-16: GOVERNANCE ARCHITECTURE (FOR RACI AND TRAINING SYSTEM)

A-16 establishes the governance framework for the training system as an internal control: it defines roles, authorities, accountability structures, and the policy basis for ongoing compliance. The RACI matrix maps every function to a Responsible, Accountable, Consulted, and Informed party. Accepted at Gate 5.

SECTION 1 – RACI MATRIX: The following RACI assigns governance roles for all major training system functions. R=Responsible (does the work), A=Accountable (owns the outcome), C=Consulted (provides input), I=Informed (notified of outcome). Every function must have at least one R and exactly one A.

(ACCT.=Accountable):



FUNCTION	RESPONSIBLE	ACCT.	CONSULTED	INFORMED	POLICY BASIS
Training content development and update	ISD / LXD	ISD Lead	SME, Compliance Lead	Instructor, LMS Admin, Contracting Officer	OMB A-123 §II.B (internal control design); Section 13.5 item (4) SME sign-off
Regulatory authority review (A-02 annual)	ISD Lead + SME	Compliance Lead	Contracting Officer, Legal (if applicable)	Instructor, LMS Admin, Records Manager	OMB A-123 (monitoring); A-14 monitoring cadence
Learner enrollment management	LMS Admin	LMS Admin	HR (roster source), Supervisor	Instructor, Compliance Lead, Learner	FAR 52.203-13(c)(2)(ii); NIST SP 800-171 Rev. 3 3.2.1 (all covered personnel trained)
Completion record maintenance and retrieval	LMS Admin	Records Manager	IT Security, Compliance Lead	Instructor, Contracting Officer (on audit)	FAR 4.703 (retention); FAR 52.203-13(c)(2)(ii) (documentation)
Exception logging and CAPA management (A-15)	Instructor	Compliance Lead	SME, HR, IT Security (as applicable)	LMS Admin, Records Manager, Supervisor	OMB A-123 (corrective action); A-15 CAPA protocol
Accessibility testing and compliance (A-08)	A11Y Lead + ISD	ISD Lead	LMS Admin (LMS interface items)	Instructor, Compliance Lead	Revised Section 508; A-08 validation plan
Security posture determination (A-09)	IT Security + ISD	IT Security Lead	Contracting Officer / COR, Records Manager	LMS Admin, Compliance Lead, Instructor	DFARS 252.204-7012; OMB A-123; A-09 plan
Version control and change log (A-12)	ISD (all content changes); LMS Admin (config changes)	ISD Lead	SME, Instructor	Compliance Lead, Records Manager	OMB A-123 (documentation); NARA naming convention; A-12 protocol
Annual monitoring and audit response (A-14)	Compliance Lead	Compliance Lead	ISD Lead, LMS Admin, Records Manager, Instructor	Contracting Officer, Supervisor	OMB A-123 §II.B; FAR 4.703; DCAA audit protocols
Capstone (A-17) review and completion certification	Instructor	Instructor	ISD Lead (calibration, first cohort)	LMS Admin (record entry), Compliance Lead	Section 8.2 gate conditions; A-17 submission protocol; DP-06 decision point
Training governance program review (A-16 annual update)	Compliance Lead	Compliance Lead	ISD Lead, IT Security, Records Manager	All roles; Contracting Officer	OMB A-123 §II.B (ongoing monitoring and assessment)

SECTION 2 – GOVERNANCE POLICY ANCHORS: The training system governance framework derives its authority from the following sources, in order of precedence: (1) Contract and DFARS/FAR clauses applicable to the current task order (see A-02); (2) NIST SP 800-171 Rev. 3 organizational requirements; (3) OMB Circular A-123 internal control standards; (4) This institution’s written ethics and compliance program (FAR 52.203-13(b)); (5) Course delivery policies in P-01 and P-04. In any conflict, the highest-ranking regulatory authority takes precedence.

SECTION 3 – GOVERNANCE REVIEW CADENCE: A-16 is reviewed annually (Q4) and on-demand whenever: (a) a key role changes; (b) a contract modification affects training scope; (c) a regulatory change affects a cited policy basis; or (d) an A-15 exception reveals a governance gap. All reviews are documented in A-12. Personnel departing a Responsible or Accountable role must have a successor named in A-16 before departure date.

D.17. A-17: INTEGRATED CAPSTONE PACKAGE (SUBMISSION SPECIFICATION AND INDEX)



A-17 is the terminal deliverable of the course. It constitutes the learner’s complete, integrated training system design portfolio: all 16 prior artifacts (A-01 through A-16) in their final accepted versions, assembled into a coherent, navigable package. A-17 is not itself an artifact with new content – it is the integration evidence that all prior artifacts are complete, accepted, internally consistent, and reviewable as a unified compliance package. The following three tables define: (1) the Artifact Index and Acceptance Tracking Sheet; (2) the A-17 Submission Checklist (DP-05 and DP-06 entry conditions); and (3) the Integrative Scoring Reference (RC criteria applied at capstone level). No learner may proceed to DP-06 review unless all conditions in the Submission Checklist are met.

A-17 TABLE 1: ARTIFACT INDEX AND GATE HISTORY

(ID=Artifact ID; TITLE=Artifact title; VER.=Final version; DATE=Date accepted; GATE=Gate cleared; INSTR.=Instructor name; SCR=Average RC score):

ID	TITLE	VER.	DATE	GATE	INSTR.	SCR.	STATUS	NOTES
A-01	Training System Scope Statement and Evidence Logic Map	v1.1	YYYYMMDD	Gate 1	[Name]	3.8	Final ✓	
A-02	Regulatory Authority Matrix	v1.0	YYYYMMDD	Gate 1	[Name]	3.7	Final ✓	
A-03	Training System Risk Register	v1.0	YYYYMMDD	Gate 1	[Name]	3.6	Final ✓	
A-04	Regulatory Traceability Matrix	v1.0	YYYYMMDD	Gate 2	[Name]	3.9	Final ✓	Includes 17 trace rows; 3 edge cases
A-05	Clause Translation Worksheet	v1.0	YYYYMMDD	Gate 2	[Name]	3.7	Final ✓	
A-06	Job Aid (Compliance Guidance Reference Card)	v1.0	YYYYMMDD	Gate 3	[Name]	3.8	Final ✓	
A-07	Assessment Plan	v1.0	YYYYMMDD	Gate 3	[Name]	3.6	Final ✓	
A-08	Accessibility Validation Plan	v1.1	YYYYMMDD	Gate 4	[Name]	3.7	Final ✓	v1.1: caption re-test added
A-09	Security Posture Statement	v1.0	YYYYMMDD	Gate 4	[Name]	3.8	Final ✓	COR PII determination attached
A-10	QA/UAT Plan	v1.0	YYYYMMDD	Gate 4	[Name]	3.6	Final ✓	All QA items PASS
A-11	LMS/LRS Configuration Specification	v1.0	YYYYMMDD	Gate 4	[Name]	3.7	Final ✓	
A-12	Change Log and Version History	v[current]	Ongoing	Gate 5	[Name]	3.8	Final ✓	Must include all prior revisions
A-13	Records Retention Plan	v1.0	YYYYMMDD	Gate 5	[Name]	3.9	Final ✓	All record types mapped
A-14	Monitoring and Audit Response Plan	v1.0	YYYYMMDD	Gate 5	[Name]	3.7	Final ✓	Audit drill log included
A-15	Exception and CAPA Protocol	v1.0	YYYYMMDD	Gate 5	[Name]	3.6	Final ✓	All open exceptions resolved
A-16	Governance Architecture (RACI)	v1.0	YYYYMMDD	Gate 5	[Name]	3.8	Final ✓	No unassigned RACI roles

A-17 TABLE 2: SUBMISSION CHECKLIST (DP-05 ENTRY CONDITIONS AND DP-06 ACCEPTANCE CONDITIONS)

(INST=Instructor initials):



CHECKLIST ITEM	ENTRY CONDITION (DP-05)	VERIFICATION METHOD	STATUS	INSTR.
All 16 artifacts (A-01–A-16) present in submission	Each artifact in its final accepted version (per Table 1); no placeholder versions; no ‘v0.x’ unless gate-accepted as final	Instructor verifies each artifact against Table 1; version confirmed against A-12	MET / UNMET	
All 5 gates cleared (Gate 1–5)	All 5 gate acceptance records present in Table 1; no gate shows ‘pending’ or ‘open’	Instructor verifies Table 1 gate column; cross-checks against LMS gate acceptance log	MET / UNMET	
A-12 Change Log is current and complete	A-12 includes entries for every version of every artifact; no artifact revision is undocumented; A-12 itself is at current version	Instructor spot-checks 3 artifacts against A-12 entries	MET / UNMET	
All A-15 exceptions are resolved	No open exceptions in A-15; all CAPA plans have documented outcomes; exception resolution dates present	Instructor reviews A-15 status column for all entries	MET / UNMET	
A-16 RACI has no unassigned roles	Every function in A-16 has a named R and A; no ‘TBD’ or blank entries	Instructor reviews A-16 RACI for completeness	MET / UNMET	
A-04 traceability covers all A-02 authority rows	Every authority row in A-02 has at least one corresponding trace row in A-04	Instructor cross-references A-02 AUTH ID against A-04 TRACE ID column	MET / UNMET	
A-13 covers all record types generated by the design	Every record type referenced in any artifact (A-01 through A-16) appears in A-13 with retention basis	Instructor spot-checks A-13 against A-07 evidence column and A-11 config records	MET / UNMET	
Peer review rubrics on file for final gate submissions	PR-01 through PR-05 peer review rubrics present for Gates 3, 4, and 5 artifact submissions	Instructor confirms peer review records in LMS assignment repository	MET / UNMET	
No open RC hard-fail conditions across any artifact	No artifact in Table 1 has an unresolved hard-fail notation; all hard-fail notes in A-12 show resolution	Instructor reviews A-12 for hard-fail flags; cross-checks with Table 1 status column	MET / UNMET	
A-17 package index is complete and navigable	Table 1 is complete; all artifacts are accessible in the submission package (not just referenced); document hyperlinks functional if digital submission	Instructor clicks all document links; confirms all files open	MET / UNMET	

A-17 TABLE 3: INTEGRATIVE SCORING REFERENCE (DP-06 ACCEPTANCE CRITERIA)

All RC-01 through RC-11 criteria from Section 8.3 are applied at the capstone level across the integrated package. The following table maps each criterion to the primary artifact(s) reviewed and the capstone-level performance descriptor for score 3 (Meets Standard) vs. score 4 (Exceeds Standard). Minimum acceptable capstone: all criteria scored ≥3; no hard-fail condition triggered on any criterion across any artifact.

(RC=RC criterion; ART.=Primary artifact(s); SCR.3=Score of 3 (meets standard); SCR.4=Score of 4 (exceeds standard); FAIL=Hard fail condition):

RC	ART.	SCR.3	SCR.4	FAIL
RC-01: Evidence Classification	A-01, A-04, A-07	All artifacts correctly distinguish regulatory evidence from performance evidence; evidence outputs specified for each graded element	Cross-artifact evidence logic is integrated: A-01 scope evidence maps directly to A-04 trace rows which map directly to A-07 ASMT table	Any artifact contains an unsupported compliance claim or missing evidence output specification
RC-02: Scope Precision	A-01, A-04, A-05	Scope boundaries stated in A-01 align with A-04 trace rows; no trace row falls outside declared scope	Scope precision is self-auditing: A-01 exclusion rationale is traceable to A-02 and documented in A-05	Scope statement so broad it encompasses all possible training activities



RC	ART.	SCR.3	SCR.4	FAIL
RC-03: Regulatory Translation	A-02, A-04, A-05	All A-02 authority rows have plain-language translations in A-05; A-04 uses translated mandate language, not raw clause text	Translation demonstrates analysis: each A-05 row includes instructional implication that is traceable to A-07 assessment design	Any A-05 translation that directly contradicts the cited clause (not just simplifies)
RC-04: Governance Integration	A-14, A-16	A-16 RACI covers all functions; A-14 monitoring cadence covers all A-02 authority rows at least annually	Governance design is anticipatory: A-14 includes specific triggers for regulatory change, personnel change, and audit notification; A-16 includes succession planning	No named Accountable party for any compliance function
RC-05: Assessment Defensibility	A-07, A-15	All ASMT entries in A-07 specify completion threshold, evidence produced, and remediation pathway; A-15 log shows CAPA for all threshold failures	Assessment architecture is audit-ready: assessments are designed to produce the exact record types required by A-04 trace rows; no assessment produces only a certificate	Assessment described as 'completion-based' with no performance threshold
RC-06: Evidence Chain Integrity	A-01, A-04, A-07, A-13	Full evidence chain traceable: clause (A-02) → objective (A-04) → assessment (A-07) → record (A-13) for at least 5 regulatory requirements	Evidence chain is closed-loop: A-13 retention basis cites specific A-02 authority; A-04 trace row references A-13 record type; chain testable by instructor in under 5 minutes per requirement	Any break in the evidence chain that would leave a regulatory requirement un-evidenced
RC-07: System Coherence	A-11, A-10, A-09	A-11 configuration matches A-07 completion thresholds; A-09 authorization status matches A-11 platform; A-10 UAT tests verify A-11 config	System design is internally integrated: any change to one artifact triggers documented update protocol in A-12 and identified re-verification in A-10	A-11 specifies a platform not verified as FedRAMP-authorized in A-09
RC-08: Security and Privacy	A-09, A-11	CUI determination present in A-09; PII minimization documented; data handling specified in A-11	CUI/PII posture is proactively defensible: A-09 contains contracting officer or COR determination memo; Privacy Act applicability determination documented regardless of outcome	Universal CUI scope claim without authority citation; no PII determination
RC-09: Accessibility Coverage	A-08, A-10	All content types in A-08 have testing methods and pass criteria specified; A-10 QA-07 through QA-09 passed	Accessibility is systematically integrated: A-08 remediation triggers are referenced in A-15 CAPA protocol; accessibility gap discovered post-delivery is traceable to specific A-08 testing gap	Any content delivered without documented accessibility review
RC-10: Retention Defensibility	A-13	All record types in A-07 evidence column appear in A-13 with FAR or regulatory basis and period stated	Retention design is proactively audit-ready: A-13 addresses terminated employee records, CUI-designated records (if applicable), and content version records separately	Any retention period shorter than the cited regulatory minimum
RC-11: Document Control	A-12 and all artifacts	All artifacts use NARA naming convention; all versions in A-12 with date, author, rationale; no artifact at v0.x as final	A-12 is a complete, unbroken revision history: no gaps in version numbering; all hard-fail resolutions documented with resolution date	Any accepted artifact missing author, date, or version metadata

A-17 NOTE ON PORTFOLIO ABSTRACT: Upon successful completion (DP-06 accepted), the learner is entitled to a Portfolio Abstract: a one-page summary of the A-17 capstone package suitable for professional portfolio use. The



Portfolio Abstract is generated by the instructor using the template in P-06 and includes: (1) course name and version; (2) learner name; (3) completion date; (4) list of artifacts produced; (5) average RC score; (6) summary of compliance domains covered (A-02 authority matrix excerpt). The Portfolio Abstract is NOT a transcript and does not constitute a credential; it is a professional document suited for attachment to RFPs, portfolio submissions, or performance reviews.



ADDENDUM E: PRE-DELIVERY VERIFICATION PROTOCOL

E.1. EXPLICIT ASSUMPTIONS REQUIRING PRE-DELIVERY VERIFICATION

REQUIRED PRE-OPERATIONAL VERIFICATION:

The following assumptions are dated and **MUST** be re-verified before each course delivery:

1. CMMC Phase 1 timeline (Nov 10, 2025 – Nov 9, 2026): verify against current DoD CIO CMMC resources at <https://dodcio.defense.gov/CMMC/> before each delivery.
2. GAGAS 2024 effective dates (QMS: Dec 15, 2025; QMS evaluation: Dec 15, 2026): verify against current GAO publications at <https://www.gao.gov/yellowbook>.
3. All regulatory citation URLs: government portal structures change – verify all URLs at delivery time.
4. DHS Trusted Tester version: verify current version and certification program details at <https://www.section508.gov/test/trusted-tester/> before updating A-08 templates.
5. FAR/DFARS amendments: verify FAR 52.203-13, FAR Subpart 4.7, and DFARS Case 2019-D041 have not been revised since preparation date.
6. FedRAMP authorization status: verify all platform selections at marketplace.fedramp.gov before deployment. Authorization status changes.
7. NIST SP 800-171 Rev. 3: verify no subsequent revision has superseded before citing in A-09.
8. cmi5 specification: verify current version at ADL GitHub before updating A-11 templates.
9. NIST SP 800-92r1 final status: cited as final (September 2023); verify no subsequent revision or errata has issued before each delivery at <https://doi.org/10.6028/NIST.SP.800-92r1>.
10. TRADOC Regulation 350-70 (2017, July 10): verify no superseding revision has been issued since 2017 at <https://adminpubs.tradoc.army.mil/regulations/> before updating CW-15-related content.



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ADDENDUM F: POLICY DOCUMENT EXEMPLARS — P-01 THROUGH P-10

The following exemplars provide representative filled templates for all ten controlled policy documents (P-01 through P-10) referenced throughout this blueprint. Each P-document is presented as a 2-column field/entry table. Entries are illustrative — they reflect the notional government contractor proxy from Addendum A and must be adapted for each actual delivery environment, program office, and contracting context before use. These documents collectively constitute the governance layer of the course delivery system: together, they define who is qualified to teach, how learners are admitted and assessed, what technology is permissible, how records are kept, how the curriculum is maintained, and how audit response is handled. Maintaining current, approved versions of all P-documents is a required gate condition (DP-05, Addendum D, D.17, Table 2).

F.1. P-01: COURSE ADMINISTRATIVE DATA

P-01 is the authoritative administrative record for a specific delivery instance. A new P-01 is produced for each cohort and must be approved before first learner enrollment.

FIELD	ENTRY (ILLUSTRATIVE — ADAPT FOR EACH DELIVERY)
COURSE ID	REGLXD-GRAD-001 · Version in delivery: v0.5 · Cohort #: [N] · Instance ID: YYYYMMDD-[Cohort#]
COURSE TITLE	Audit-Ready Training Systems Design for Federal R&D and Mission Programs
DELIVERY DATES	Start: YYYYMMDD · End: YYYYMMDD · Week 0 diagnostic window: YYYYMMDD–YYYYMMDD · Track assignment deadline: YYYYMMDD
TRACK / SCHEDULE	Standard track (8-week): [X] learners enrolled · Accelerated track (5-week): [X] learners enrolled · Mixed-track cohort: Yes / No · If mixed: gate dates are track-specific (see Addendum B, B.2 track comparison table)
ENROLLMENT CAP	Standard track: max [X] per cohort (default: 20; vILT gate review workload = ≈2 hrs/learner/gate). Accelerated: max [X] (default: 12). Rationale: caps protect gate review quality.
COMPLETION REQUIREMENTS	(1) All 17 artifacts (A-01–A-17) accepted · (2) All 5 gates cleared · (3) A-17 capstone accepted at DP-06 · (4) P-09 satisfaction survey submitted · (5) Peer review rubrics submitted for all required gate submissions. Completion credential: Course Completion Certificate issued after DP-06 acceptance.
EXTENSION POLICY	Extensions require documented basis: (a) Medical: provider documentation required; up to 4-week extension; instructor authority. (b) Work emergency: supervisor attestation; up to 2-week; instructor authority. (c) Instructor-approved: learner written rationale; up to 2-week; documented in A-15. Maximum one extension per learner per instance. Extension does not waive quality standards.
GRADING AUTHORITY	Primary: [Instructor of Record] · Gate authority: Gates 1–5 and DP-06 · Appeals authority: Program Director · Appeals window: 5 business days post-gate decision · Program Director decision window: 10 business days; final.
RECORDS CUSTODIAN	[Name] · Role: LMS Administrator · FedRAMP-authorized LMS: [Vendor] · Retention per A-13 (FAR 4.703: 3 years from contract closeout) · Audit response lead time: 10 minutes or as directed · Contact: [email]
LMS PLATFORM	[Vendor Name and Version] · FedRAMP ATO: [effective date, expiration] · xAPI/cmi5 version: [N] · LRS: [Vendor] · Full configuration: A-11
P-01 APPROVAL	Approved by: [Instructor of Record] · Date: YYYYMMDD · Admin authority: [Program Director] · Date: YYYYMMDD · A-12 entry required for any P-01 amendment during a running cohort
ASSESSMENT INTEGRITY	All submitted artifacts must represent the learner’s own original work. Peer review contributions must be attributed in A-12. Artifact recycling across delivery cohorts (re-submitting a prior cohort’s work) is prohibited and constitutes a violation of this policy. Suspected violations are reviewed by the Instructor of Record; confirmed violations are escalated to the program director and documented in A-12. The integrity expectation applies to all A-series artifacts (A-01 through A-17) and to all P-series policy documents produced in this course context.



F.2. P-02: PREREQUISITE ASSESSMENT AND DIAGNOSTIC PROTOCOL

P-02 governs the Week 0 prerequisite diagnostic: its format, scoring, administration conditions, pass/fail criteria, bridge path triggers, and documentation requirements.

FIELD	ENTRY (ILLUSTRATIVE — ADAPT FOR EACH DELIVERY)
DIAGNOSTIC INSTRUMENT	Instrument ID: P-02-DIAG-v[N] · Format: Written scenario analysis + ISD knowledge check · Length: Approximately 90 minutes · Delivery: Asynchronous, self-paced, LMS-administered within Week 0 window · Accessibility: Closed captions for any audio; screen-reader-compatible; no time limit unless scheduling requires it
DOMAINS ASSESSED	(1) ISD competency: Bloom-aligned objective writing (3 items), ADDIE process identification (2 items), module structure analysis (1 item) · (2) Regulatory literacy: FAR clause identification (2 items), NIST 800-171 control interpretation (1 item) · (3) Professional context: Self-assessment of compliance-domain experience (narrative) · (4) Track self-selection: Availability attestation (≥18 hrs/week for accelerated)
SCORING AND THRESHOLDS	Standard track minimum: 70% ISD competency domain; regulatory literacy not required but informs scaffolding adjustments · Accelerated track minimum: 80% ISD + regulatory literacy ≥60% + confirmed availability · Below-threshold: Standard track bridge path (Section 2.4) triggered · Below-threshold on ISD with no bridge feasibility: enrollment deferred; instructor consultation required
BRIDGE PATH TRIGGER	Bridge path (Section 2.4) assigned when: ISD competency score 55–69% OR learner self-reports significant gap in Bloom-level objective writing · Bridge materials: asynchronous pre-work modules (1–4 hours total) covering objective anatomy, ADDIE phases, and regulatory reading orientation · Bridge completion required before Gate 1 submission
TRACK ASSIGNMENT	Track assignment made by instructor based on diagnostic results, self-reported availability, and professional context · Track assignment documented in P-01 and communicated to learner in writing · Track change after Week 1 requires instructor approval and A-12 entry · Only one track change permitted per delivery instance
DOCUMENTATION	Diagnostic scores retained in LMS per A-13 retention schedule · Instructor records track assignment rationale in course administration log · Bridge path completion documented in A-12 · Diagnostic instrument version logged in P-01
P-02 APPROVAL	Instrument reviewed by: [Instructor of Record / SME] · Review date: YYYYMMDD · Version: [N] · Next review: YYYYMMDD (annual or after regulatory revision)

F.3. P-03: TECHNOLOGY ACCESS AND LMS PROVISIONING CHECKLIST

P-03 defines the technology readiness requirements that must be confirmed before first learner access is granted. All items must be resolved or have documented determination before DP-01.

FIELD	ENTRY (ILLUSTRATIVE — ADAPT FOR EACH DELIVERY)
LMS ACCESS PROVISIONING	Checklist item: All enrolled learners have confirmed LMS account activation · Due: 48 hours before Week 1 start · Verification: LMS administrator run of enrollment report · Escalation: IT support contact within institution · Hard stop: Learner may not submit Gate 1 artifacts without confirmed LMS access
AUTHORING TOOL VERIFICATION	Learner-supplied: Articulate 360 (Storyline or Rise) or Adobe Captivate or equivalent HTML5 output tool · Instructor verification: learner self-attests tool access in Week 0 · Alternative: if no tool available, learner may use free trial for first two artifacts; must have licensed access by Gate 2 · Tool version: record in P-01
xAPI/SCORM PLAYER CONFIGURATION	LMS configured for: cmi5 or SCORM 1.2/2004 · xAPI/LRS connection verified by LMS admin · Test launch: admin uploads test SCORM package and verifies completion signal · Documentation: FedRAMP ATO reference number in A-11



FIELD	ENTRY (ILLUSTRATIVE — ADAPT FOR EACH DELIVERY)
ACCESSIBILITY COMPLIANCE OF LMS PLATFORM	LMS platform must have current VPAT / Accessibility Conformance Report (ACR) on file · Verification: instructor retrieves ACR from vendor documentation portal · Minimum standard: WCAG 2.0 AA · Hard stop: if ACR is not available or shows material non-conformance, escalate to program director before enrollment opens
VIDEO AND SYNCHRONOUS PLATFORM READINESS	Zoom (or equivalent) account active for all enrolled learners · Breakout room capability verified · Screen share and annotation enabled · Closed captioning enabled for vILT sessions (live captions or post-session transcript required) · Test session run with instructor and at least one learner before Week 1 vILT
COMMUNICATION CHANNEL	LMS messaging or designated email list confirmed active · Instructor contact information posted in LMS course shell · Emergency contact protocol documented in P-01 · Response time expectation for instructor: within 1 business day during active delivery period
CUI HANDLING CONFIRMATION	If any course artifacts will reference or contain Controlled Unclassified Information: learner must confirm completion of organization CUI training before enrollment · CUI attestation form on file · Course templates in Addendum D use only notional contractor proxy data; learners should not submit CUI in artifact drafts without prior written instructor authorization
P-03 SIGN-OFF	All items above confirmed resolved (or documented as N/A with rationale) before DP-01 · Confirmed by: [Instructor of Record / LMS Administrator] · Date: YYYYMMDD · A-12 entry for any unresolved items and their remediation timeline

F.4. P-04: INSTRUCTOR QUALIFICATION STANDARD

P-04 defines the minimum qualifications, verification requirements, and operational boundaries for all instructors of record. Must be completed and documented before any instructor reviews gate submissions.

FIELD	ENTRY (ILLUSTRATIVE — ADAPT FOR EACH DELIVERY)
MINIMUM CREDENTIALS	(1) Graduate-level ISD credential (master’s or equivalent professional certification); OR (2) Equivalent demonstrated experience: 5+ years professional ISD with documented government or federal contractor program delivery. Verified by: [credential verification authority] before first gate review.
DOMAIN EXPERIENCE (COMPLIANCE-ADJACENT ISD)	Minimum 2 years professional ISD experience in at least one of: (a) Federal compliance training design; (b) DoD/federal TSP development; (c) Government-contractor eLearning with regulatory traceability requirements. Absent domain experience: co-instructor pairing required for first delivery. Verified via: resume review + self-attestation confirmed by program director.
REGULATORY READING PROFICIENCY	Pre-delivery calibration exercise: instructor independently translates 3 FAR/DFARS clauses and 2 NIST SP 800-171 sections into training mandates using A-05 template · Pass criterion: all 5 translations correctly identify mandate and at least one evidence output · Reviewed by program director against answer key · Re-calibration required annually or after material regulatory revision
vILT FACILITATION EXPERIENCE	Minimum 10 hours documented vILT facilitation before first delivery · Acceptable platforms: Zoom, Teams, WebEx or equivalent with breakout rooms and annotation · First-time vILT instructors: dry-run required before Week 1; post-session debrief for first two module vILTs
GATE REVIEW AUTHORITY	Instructor of record: authority to accept/deny Gates 1–5 and DP-06; grant one revision cycle per gate; escalate to instructor conference if second revision required · Co-instructor: advisory only; no unilateral acceptance · Calibration requirement: for mixed-instructor cohorts, blind-review 2 artifacts before first gate; resolve ≥0.5-point RC criterion differences before proceeding
SME CONSULTATION PROTOCOL	When regulatory claim cannot be independently verified: flag “SME verification required” in feedback; consult designated SME (A-16 RACI) within 5 business days; document in A-12 · Do not accept artifact with unverified regulatory claim as final · SME consultation does not extend revision deadlines



FIELD	ENTRY (ILLUSTRATIVE — ADAPT FOR EACH DELIVERY)
CONFLICT OF INTEREST DECLARATION	Disclose before cohort start: (a) Employment relationship with any enrolled learner; (b) Financial interest in any organization featured in learner artifacts; (c) Relationship with any vendor named in learner artifacts · Undisclosed conflict = grounds for grade review by program director
CPE REQUIREMENTS	Regulatory currency: 2 hrs minimum documented review of FAR/DFARS, NIST 800-171, Section 508 annually · ISD professional development: 10 hrs/year (conferences, coursework, or equivalent) · Technology currency: current with LMS/LRS features per A-11 before each delivery · CPE documented in instructor qualification record
P-04 QUALIFICATION RECORD	Instructor name: [Name] · Credential verified: [Yes/No] · Domain experience confirmed: [Yes/No; by whom] · Calibration completed: [Date; pass/fail] · vILT hours: [N; source] · COI declaration: [Date] · Qualified for gate review: [Yes/No] · Approved by: [Program Director] · Date: YYYYMMDD · Next review: YYYYMMDD

F.5. P-05: ACCESSIBILITY COMPLIANCE POLICY

P-05 defines accessibility standards, verification requirements, scope of coverage, and remediation authority for all instructional content and technology in this course.

FIELD	ENTRY (ILLUSTRATIVE — ADAPT FOR EACH DELIVERY)
LEGAL THRESHOLD	Revised Section 508 Standards (Access Board Final Rule, effective January 18, 2018) requiring WCAG 2.0 Level A and AA conformance for all federal information and communication technology (ICT). This is the compliance floor. Agency operational standards may exceed this floor (e.g., WCAG 2.1/2.2 AA); see A-08 for content-level implementation standard.
SCOPE OF COVERAGE	All instructional content objects: eLearning modules (SCORM/cmi5), video with captions, PDF job aids, spreadsheet artifacts (A-04, A-12 templates), LMS course shell, synchronous vILT platform, any supplemental materials distributed to learners. Learner-produced artifacts: learners are instructed to apply accessibility standards in their artifacts; instructor notes non-conformance in gate feedback but does not require remediation unless RC-04 hard fail conditions are triggered.
TESTING METHOD	DHS Trusted Tester process (current version at https://www.section508.gov/test/trusted-tester/) is the designated testing methodology · Automated pre-screening: axe DevTools or equivalent · Manual keyboard navigation testing required for all interactive objects · Screen reader testing: NVDA + Chrome or JAWS + IE11 · Tester qualification: Trusted Tester certification preferred; documented tester training required
MINIMUM STANDARDS PER CONTENT TYPE	Video: closed captions (auto-captions must be corrected; accuracy target ≥98%); audio description for content not conveyed by captions · PDF: tagged; reading order verified; alt-text on all meaningful images · eLearning: keyboard navigation; focus indicators; color contrast ≥4.5:1 (text), ≥3:1 (UI components) · Spreadsheets: sheet names, column headers; no color-only encoding of required information
DELIVERY GATE STANDARD	A-08 Accessibility Validation Plan must be completed and accepted at DP-05 gate before any learner enrollment · Pre-delivery gate condition (A-08, Section D.8): zero Level 1 WCAG 2.0 AA failures; all non-critical findings documented with remediation timeline · Any new Level 1 finding discovered post-delivery: delivery hold for affected content object; remediate before re-enrollment of new cohorts
REMEDATION AUTHORITY	Level 1 WCAG failures: instructor of record has authority to hold delivery; notifies program director immediately · Level 2 findings: documented in A-12; remediation assigned with due date; reviewed at next delivery cycle · Platform-level accessibility non-conformance: escalated to program director and LMS administrator; FedRAMP/VPAT documentation re-examined
P-05 REVIEW CYCLE	Annual review of this policy OR after any: (a) revision to the Revised Section 508 Standards; (b) release of updated DHS Trusted Tester process; (c) change in LMS platform; (d) addition of new content type not currently covered · Reviewed by: [Instructor of Record + LMS Admin] · Review date: YYYYMMDD · Next review: YYYYMMDD



FIELD	ENTRY (ILLUSTRATIVE — ADAPT FOR EACH DELIVERY)
UDL IMPLEMENTATION NOTE	Universal Design for Learning (UDL) principles (CAST, 2018) are applied as a design constraint across this course: multiple means of representation (async microlearning + vILT + fillable templates), multiple means of engagement (peer calibration + audit simulation + iterative cycles), and multiple means of action and expression (artifact-based assessment model). UDL implementation does not replace Section 508 conformance requirements; it operates as a layer above the legal accessibility floor. See Section 11.3 of the blueprint for UDL design integration note.

F.6. P-06: SECURITY AND CUI HANDLING POLICY

P-06 defines the security posture requirements, CUI handling rules, and data protection obligations for all personnel involved in course delivery, maintenance, and learner records management.

FIELD	ENTRY (ILLUSTRATIVE — ADAPT FOR EACH DELIVERY)
PLATFORM SECURITY STANDARD	All platforms used in course delivery (LMS, LRS, synchronous platform, document storage) must hold current FedRAMP authorization (or DoD IL-2 equivalent) · FedRAMP authorization verified at: marketplace.fedramp.gov before each delivery · Authorization status documented in A-09 and A-11 · Unauthorized platform use requires program director approval and documented compensating controls
CUI DETERMINATION	Course content as designed does not contain CUI · All artifact templates in Addendum D use notional contractor proxy data · Learner-produced artifacts may contain CUI if learners apply templates to actual operational environments · Learners must confirm CUI training completion before submitting artifacts containing actual operational data (see P-03) · Instructor does not store learner CUI artifacts on personal devices
INCIDENT RESPONSE	Security incidents involving learner data or course platform: report to LMS administrator and program director within 4 hours of discovery · Incident response procedure: NIST SP 800-61r3 · Incident documentation: A-15 exception record · Regulatory reporting: course program office determines applicability of breach notification requirements based on data classification · Learners notified of incidents affecting their data within 72 hours where feasible
PRIVACY ACT APPLICABILITY	Learner records (enrollment, completion, gate scores, diagnostic results) constitute records about individuals · Retention, use, and disclosure governed by Privacy Act of 1974 (5 U.S.C. § 552a) where applicable to the program office · Records disclosed only for: (a) official course administration; (b) learner’s own records request; (c) documented legal requirement · Records custodian: see P-01
PERSONNEL SECURITY	Instructors with access to learner records: must have completed applicable organization background investigation · Minimum: organization-standard IT user background check · Access removed: within 1 business day of instructor role termination · Shared accounts prohibited · LMS access logs retained per A-13 retention schedule
DATA MINIMIZATION	Course collects only data required for: (1) enrollment and completion documentation; (2) assessment and gate records; (3) Kirkpatrick Level 1–4 evaluation (Levels 3–4 are voluntary; see Section 8.5) · No marketing use of learner data · Learner 90-day and longitudinal survey participation is voluntary; results de-identified before aggregation
P-06 REVIEW CYCLE	Annual review OR after any: (a) FedRAMP authorization change for any platform; (b) CUI policy revision; (c) Privacy Act system of records notice (SORN) change; (d) security incident affecting course data · Reviewed by: [Instructor of Record + Security Officer] · Review date: YYYYMMDD · Next review: YYYYMMDD

F.7. P-07: RECORDS RETENTION AND AUDIT RESPONSE POLICY

P-07 defines the records retention schedule, disposition authority, and audit response procedures for all records



produced in connection with course delivery. Cross-reference: A-13 (records retention plan artifact).

FIELD	ENTRY (ILLUSTRATIVE — ADAPT FOR EACH DELIVERY)
GOVERNING REGULATION	FAR 4.703: contract and subcontract records retained for 3 years after final payment under the contract where training is a deliverable · FAR 52.203-13: ethics/compliance training completion records retained for contract period + 3 years · Privacy Act: learner records retained per applicable SORN · NARA GRS 6.1 (training records): 3 years after course completion or contract closeout, whichever is later · A-13 artifact specifies per-record-type retention schedules
RECORDS SCOPE	Retention-governed records include: (1) Enrollment records (P-01, diagnostic results); (2) Completion records (gate acceptance decisions, A-17 final version, completion certificates); (3) Assessment records (all RC rubric scores, gate feedback documents); (4) Training delivery records (vILT attendance logs, LRS xAPI statements, SCORM completion records); (5) Version and change records (A-12 all versions); (6) Exception/CAPA records (A-15); (7) Security records (access logs per P-06)
RETENTION PERIODS BY RECORD TYPE	Completion certificates: 7 years (FAR 4.703 + buffer) · Assessment/gate records: 3 years from contract closeout · LRS xAPI statements: 3 years from activity date · Enrollment/diagnostic records: 3 years from program end · A-12 change log: life of course (permanent while course version is in use) + 3 years after version retirement · A-15 exception records: 5 years
STORAGE AND FORMAT	All records stored in: FedRAMP-authorized platform (see A-09, A-11) · Format for long-term retention: PDF/A for completed artifacts and certificates; JSON for xAPI statements; original formats for working files · Naming convention: REGLXD-GRAD-001-[Cohort#]-[ArtifactID]-[LearnerID]-YYYYMMDD.[ext] · Backup: platform backup schedule documented in A-11
AUDIT RESPONSE PROCEDURE	Step 1: Auditor request received → records custodian (P-01) notified within 1 business day · Step 2: Requested records identified in LMS/LRS within 10 minutes (target) or 1 business day (maximum) · Step 3: Records exported in requested format; chain of custody documented · Step 4: Auditor questions about training design answered by instructor of record (P-04); regulatory questions escalated to compliance SME (A-16 RACI) · Step 5: All audit interactions documented in A-14
DISPOSITION AUTHORITY	Authorized to approve disposition (deletion) after retention period: Program Director · Disposition documentation: A-12 entry required · Legal hold: if litigation, investigation, or audit is pending, disposition suspended until written clearance from legal authority · CUI records: disposed per applicable CUI destruction requirements (NARA CUI Registry)
P-07 REVIEW CYCLE	Annual review OR after any: (a) FAR/DFARS retention requirement change; (b) NARA GRS update; (c) platform change affecting record storage; (d) audit finding related to records · Reviewed by: [Instructor of Record + Records Custodian] · Review date: YYYYMMDD · Next review: YYYYMMDD

F.8. P-08: PEER REVIEW AND CALIBRATION PROTOCOL

P-08 governs the peer review process that operates throughout the course as a formative feedback mechanism (PR-01 through PR-05 rubric instruments). Peer review is required at each gate but is not a grading instrument; it is a calibration and professional development mechanism.

FIELD	ENTRY (ILLUSTRATIVE — ADAPT FOR EACH DELIVERY)
PEER REVIEW PURPOSE	Peer review in this course serves three functions: (1) Formative feedback: learners receive structured critique of artifact drafts before gate submission; (2) Calibration: learners practice applying RC rubric criteria, developing the evaluative vocabulary they will use professionally; (3) Portfolio preparation: peer feedback identifies revision targets before the instructor gate review, increasing the likelihood of first-cycle gate acceptance



FIELD	ENTRY (ILLUSTRATIVE — ADAPT FOR EACH DELIVERY)
SCOPE AND TIMING	Peer review required at each gate (Gates 1–5) before instructor evaluation · Instrument: PR-01 through PR-05 rubric (subset of RC criteria relevant to gate artifacts) · Review assignment: each learner reviews 2 peer artifacts per gate; assigned by instructor to minimize conflicts of interest · Timing: peer review window closes 48 hours before gate submission deadline
REVIEWER ASSIGNMENT	Instructor assigns peer review pairs at start of each module · Conflict criteria: no review assignment between learners employed by same organization, enrolled in same cohort who collaborate outside of course, or with documented professional relationship · Learner may flag conflict within 24 hours of assignment; instructor reassigns · Unassigned reviews (learner drop): instructor completes substitute review within 72 hours
REVIEW INSTRUMENT	PR-01 to PR-05 instruments use subset of RC-01–RC-11 criteria scored formatively (Developing / Approaching / Meeting / Exceeding) rather than 0–4 numeric scale · Each rubric item includes: criterion descriptor, sample evidence of meeting/not meeting, formative comment field · Instructors provide PR calibration examples at module start · Instruments delivered in LMS peer review tool or as structured document submission
QUALITY STANDARDS FOR PEER REVIEWS	Peer reviews must: (a) Address every rubric item with substantive comment (not just rating); (b) Cite specific artifact evidence for each rating; (c) Follow professional respectful tone · Instructor spot-checks 20% of peer reviews per gate for quality · Inadequate peer review (rating without comment; review that does not reference artifact content) returned for revision · Persistent inadequate peer reviews documented in A-15 and addressed with learner
CALIBRATION AND NORMING	Instructor provides “anchored” sample artifacts (Meeting standard) at each gate with sample peer review for calibration · For mixed-instructor cohorts: instructors run blind calibration on 2 sample artifacts using PR rubric before gate opens; >1 rating level disagreement = reconcile before learner reviews proceed · Calibration results documented in instructor course log
CONFIDENTIALITY	Peer reviews are not anonymous in this course by design: professional regulatory environments require accountability in document review · Learners are informed at enrollment that peer review authorship is visible to instructor and reviewee · Peer review content retained per P-07 retention schedule · Exception: instructor may anonymize reviews if learner safety concern is documented
P-08 REVIEW CYCLE	Annual review OR after any: (a) change in PR rubric instruments; (b) instructor feedback indicating calibration drift; (c) cohort-level peer review quality concern · Reviewed by: [Instructor of Record] · Date: YYYYMMDD

F.9. P-09: LEARNER EVALUATION AND FEEDBACK INSTRUMENTS

P-09 defines all evaluation instruments administered to learners for Kirkpatrick Level 1 (Reaction), Level 3 (Transfer), and Level 4 (Results) data collection (Level 2 is assessed via RC rubric and gate records — see Section 8.3 and A-17). All instruments are voluntary except the Level 1 satisfaction survey.

FIELD	ENTRY (ILLUSTRATIVE — ADAPT FOR EACH DELIVERY)
L1 SATISFACTION SURVEY (REQUIRED)	Instrument: P-09-L1-v[N] · Format: 5-point Likert (Strongly Disagree – Strongly Agree) · Items (10 total): 3 on content relevance, 2 on artifact format utility, 2 on instructor feedback quality, 2 on gate structure credibility, 1 on overall recommendation · Open field: “Most useful aspect of course”; “One change that would improve the course” · Required for course completion (not for grading; completion of survey is the requirement) · Deployed: within 24 hrs of DP-06 acceptance via LMS auto-message · Threshold: cohort mean $\geq 4.0/5.0$; persistent below-threshold triggers content review
L3 TRANSFER SURVEY (VOLUNTARY, 90-DAY)	Instrument: P-09-L3-v[N] · Format: Structured self-report (5 items) · Items: (1) Have you applied regulatory crosswalk methods from this course in your work? (2) Have you used any of the 17 artifact templates in professional context? (3) Has this course changed how you approach compliance evidence documentation? (4) Describe one specific application of course content since completion. (5) What barrier, if any, prevented application? · Delivered: LMS auto-message at 90 days post-DP-06 · Supervisor attestation form (optional): attached to L3 survey; available for employed learners whose supervisors consent · Target response rate: $\geq 60\%$



FIELD	ENTRY (ILLUSTRATIVE — ADAPT FOR EACH DELIVERY)
L3 SUPERVISOR ATTESTATION (VOLUNTARY)	Instrument: P-09-L3-SUPER-v[N] · Format: 6-item structured checklist + narrative · Items: (1) Learner has demonstrated improved compliance documentation practices; (2) Learner has designed or revised a training system using course methods; (3) Learner has applied regulatory traceability analysis in work product; (4) Learner has contributed to an audit preparation activity; (5) Learner’s work product meets organizational quality standards; (6) Narrative: describe specific example of applied learning · Distributed: attached to learner’s P-09-L3 survey for learner to forward to supervisor · Returned: to program office (not instructor) for de-identification
L4 LONGITUDINAL SURVEY (VOLUNTARY, 6-MONTH AND 12-MONTH)	Instrument: P-09-L4-v[N] · Format: Structured self-report (7 items) · Items: (1) Have training systems you designed using course methods been tested in an audit, review, or inspection? (2) Were any DCAA or OIG findings related to training records issued in your reporting period? (3) If yes, were training-record findings related to content you designed? (4) Has your organization’s training-record deficiency rate improved since course completion? (5-7) Scaled items on audit readiness, evidence quality, and regulatory currency maintenance · Delivered: 6-month and 12-month post-completion LMS auto-message · Participation: completely voluntary; results de-identified; not shared with employer · Positive result threshold: ≥70% of respondents report no training-related audit findings
INSTRUMENT VERSION CONTROL	All P-09 instruments governed by A-12 version control · Instrument revisions require: documented rationale; comparability analysis if longitudinal trend data is affected; program director approval · Version notation in LMS: instrument version recorded with each administration · Historical instrument versions retained per P-07 for longitudinal data integrity
DATA HANDLING	L1 data: retained at item level in LMS; cohort aggregate reported to program director after each delivery · L3/L4 data: de-identified before aggregate reporting; individual responses not disclosed to instructor · Supervisor attestation: de-identified; used only for program improvement · All P-09 data retained per P-07 schedule · No external publication of identifiable learner data
P-09 REVIEW CYCLE	Annual review of all instruments OR after: (a) cohort aggregate L1 score <3.5/5.0 for 2 consecutive cohorts; (b) response rate <30% on voluntary instruments for 3 consecutive cohorts; (c) regulatory revision affecting L4 outcome indicators · Reviewed by: [Instructor of Record + Evaluation Specialist] · Date: YYYYMMDD

F.10. P-10: CURRICULUM MAINTENANCE AND VERSION CONTROL POLICY

P-10 defines the rules governing when and how the course curriculum is revised, versioned, and approved. It applies to all 17 artifacts (A-01–A-17), all policy documents (P-01–P-10), the blueprint itself (REGLXD-GRAD-BP-001), and all delivery support materials.

FIELD	ENTRY (ILLUSTRATIVE — ADAPT FOR EACH DELIVERY)
REVISION TRIGGERS	Mandatory revision required within 90 days of: (a) Material change to any CW-01–CW-38 regulatory source (FAR/DFARS clause amendment, NIST SP revision, Section 508 standards revision, CMMC phase change); (b) DHS Trusted Tester process version update; (c) FedRAMP authorization change for any delivery platform; (d) DCAA or Inspector General finding directly related to course content · Discretionary revision: following learner L1 survey result below threshold for two consecutive cohorts, instructor-identified content gap, or completion of SME review cycle
REVISION CLASSIFICATION	Minor revision (A-rev): typographic, formatting, or non-substantive correction · Content revision (B-rev): change to regulatory citation, example, or table entry that does not alter the artifact template schema or gate criteria · Structural revision (C-rev): change to artifact schema, gate criteria, RC rubric, assessment instrument, or learning objectives · Version increment: Minor → fourth decimal (v0.4.1); Content → third decimal (v0.4 → v0.5); Structural → minor version (v0 → v1.0); Full rebuild → major version (v1 → v2)
VERSION CONTROL PROCEDURE	(1) Proposed revision documented in A-12 with change classification, regulatory basis (if applicable), and impact assessment · (2) Content review by instructor of record; regulatory review by designated SME for any A or B-rev affecting regulatory citations · (3) Structural revisions require program director approval before implementation · (4) All revisions tested in LMS staging environment before production deployment · (5) A-12 entry finalized with effective



FIELD	ENTRY (ILLUSTRATIVE — ADAPT FOR EACH DELIVERY)
	date · (6) Learners in active cohorts notified of any revision affecting their open gate submissions; remediation window granted if needed
IN-COURSE REVISION CONSTRAINTS	No A or B-rev affecting learner open gate submissions without 72-hour advance notice to affected learners · No C-rev during an active cohort except for mandatory regulatory revision with program director approval · If C-rev is required mid-cohort: affected learners may complete current gate under prior version; all subsequent gates under revised version · Gate criteria changes require notification to all in-progress learners and documented rationale
RETIRED VERSION HANDLING	Retired course versions (any major or minor version no longer in delivery): (a) Archive master copy in program file with version metadata; (b) Note retirement date in A-12; (c) Learner completion records reference version in delivery per P-01; (d) Retain for 3 years post-retirement per P-07 · Version in TOC and all footers must match version declared in P-01 before delivery begins
REGULATORY CURRENCY MONITORING	Instructor of record responsible for monitoring: FAR/DFARS amendments (quarterly review of Federal Register); NIST SP 800-171 and CMMC updates (NIST CSRC and DoD CIO websites); Section 508/WCAG updates (Access Board and W3C); FedRAMP platform authorization status (marketplace.fedramp.gov) · Monitoring documented: annual regulatory currency review checklist retained in program file · Addendum E: all time-sensitive regulatory citations verified at each delivery per E.1 checklist
APPROVAL AUTHORITY BY REVISION TYPE	Minor (A-rev): instructor of record · Content (B-rev): instructor of record + peer review by second qualified instructor · Structural (C-rev): program director approval required + SME review of affected regulatory content · Major version (v1.0+): formal review committee (program director + 2 SMEs + accessibility reviewer) · Emergency revision (imminent regulatory compliance risk): instructor of record may implement with immediate program director notification; formal approval within 5 business days
P-10 REVIEW CYCLE	P-10 itself reviewed annually · Triggered review: any structural revision to the course or any change to governing regulatory frameworks · Reviewed by: [Program Director] · Review date: YYYYMMDD · Next review: YYYYMMDD
MATERIALS LICENSING REVIEW	All third-party instructional materials (readings, templates, scenario sources) used in course delivery must undergo copyright status review before each cohort. Preference hierarchy: (1) U.S. federal government works in public domain; (2) Creative Commons licensed works (CC-BY or CC-BY-SA preferred); (3) institutional or consortium license coverage; (4) per-use licensing approval with documented authorization. Materials without clear copyright clearance may not be distributed to learners. Copyright status determinations are documented in A-12 and reviewed as part of the annual curriculum maintenance cycle governed by this policy.



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ADDENDUM G: BLUEPRINT VERSION HISTORY AND CHANGE LOG

VERSION 0.1 — 2025-08-01

CHANGES

- Initial prototype draft. Established course title, five-module architecture, terminal objective, and enabling objective framework (EO.M1–EO.M5). Included draft lesson inventory (25 lessons), initial artifact catalog (A-01 through A-17 IDs established), and placeholder regulatory crosswalk (CW-01 through CW-19 initial entries). Front matter, addenda, and formative assessment instruments not yet present. Document status: working draft for author use only.

IMPACT: Version 0.1 constitutes the SAM Preparation phase initial design prototype from which successive approximation cycles began. It is documented here for version lineage traceability per RC-07 requirements; no archived copy of the v0.1 file is publicly distributed.

VERSION 0.2 — 2025-09-01

CHANGES

- Added Section 14 (Draft Blueprint Changelog) (temporary section to be ported to metadata; relocated to Addendum G in Version 0.5).
- Corrected document status classification (Section 2.1) from “Controlled Document — First Release” to “Portfolio Prototype — Pre-Release Draft.”
- Updated document release date and version metadata.
- Added Section 2.5 **POI Alignment Statement** clarifying that the blueprint mirrors TRADOC Program of Instruction organizational conventions without claiming formal adoption of TRADOC governance processes.
- Refined terminology definitions for **Module** and **Lesson** to align with TRADOC POI and TLO conventions.
- Corrected citation reference for **GAO Yellow Book (2024 revision)**.
 - Removed or replaced residual placeholder text fields to improve reviewer usability:
 - Replaced placeholder under **Section 10.1 and 10.2** with an explanatory note clarifying that example excerpts are illustrative and must be replaced with project-specific entries.
 - Replaced placeholder under **Section 11 header** with an environment-validation note regarding authorization, security categorization, and records governance.
 - Replaced placeholder under **Section 11.2 header** with a note clarifying that listed tools are examples and final selections must be recorded in P-01.
 - Removed placeholder text under **Section 13** as redundant with existing designer notes.
- Minor editorial and formatting revisions for clarity and consistency.

IMPACT: No changes to course structure, learning objectives, artifact set, regulatory crosswalk, or module architecture. (Section 14 has been relocated to Addendum G as of Version 0.5, fulfilling the v0.2 temporary-designation note.)

VERSION 0.3 — 2026-03-05

CHANGES

- Corrected residual Version 0.1 reference in the closing disclaimer section to Version 0.3, ensuring internal consistency across all document control references.
- Added a **front-matter section** preceding the numbered document body, including a dedicated **Disclaimer page** (relocating the disclaimer previously printed on the cover page and the Section 13.6 “Document Status and Implementation Disclaimer” text) and the addition of a **Table of Contents** for the document.
- Refined **RC-04 (Rubric Micro-Criteria Library)** and **CW-26 (Regulatory Crosswalk)** to clarify that forward-compatible implementation of WCAG 2.1 or 2.2 is acceptable and common federal practice; **the hard-fail**



condition applies specifically to overclaiming a higher WCAG version as the legal Section 508 baseline, rather than identifying it as a beyond-minimum enhancement.

- Added **[Governance Analogue]** prefix to the Operational Requirement cells for **CW-04 (OMB A-130)**, **CW-29 (ISO 10006)**, and **CW-30 (NIST SP 800-37 RMF)** to distinguish governance frameworks that inform training system design by structural analogy from authorities that directly impose training design requirements.
- Added clarifying language to the **Section 4** crosswalk introduction explaining the purpose and interpretation of the **[Governance Analogue]** prefix for readers.
- Added forward-compatibility clarification note to **A-08 Accessibility Validation Plan** template scoring language (Section 10) to ensure alignment with the updated RC-04 accessibility interpretation.
- Added **Student Competency Model aligned to Evidence-Centered Design (ECD)** in Section 2.4, defining the four competency families assessed across the artifact set: **Regulatory Interpretation, Evidence Architecture, Compliance Training Governance, and Audit-Ready System Integration**, with mapped rubric indicators and artifact references.
- Added **Terminal Objective scope clarification** immediately following the CTO/TLO statement distinguishing learner responsibilities for **design authorship and governance judgment** from specialist execution roles (e.g., Trusted Tester accessibility validation, cybersecurity implementation under an ATO, independent LRS administration).
- Updated **Enabling Objective coding convention** to module-aligned identifiers (**EO.M1–EO.M5**) to improve traceability between objectives, modules, and artifact outputs.
- Added **POI Alignment Statement** clarifying that the blueprint is structured to align conceptually with **TRADOC POI conventions** while remaining a portfolio prototype rather than a formally governed TRADOC training product.
- Expanded **module specification guidance** to clarify that Section 7 functions as an **executable design specification** rather than a narrative syllabus, reinforcing artifact outputs, acceptance gate criteria, and regulatory scope as the governing instructional contract.
- Added documentation notes identifying **interactive simulation elements** within the artifact production arc (e.g., peer red-team exercise integration in Module 3 and mock 508 reviewer challenge session in Module 4).
- Implemented minor technical edits, regulatory wording corrections, and consistency improvements across terminology, citation formatting, and version metadata.
- Refined accessibility baseline criterion in **RC-04**, **CW-26**, and the **A-08 template note** to replace “must be labeled as going beyond the legal minimum” with a more precise framing that distinguishes the legal compliance threshold (WCAG 2.0 AA per 2017 Revised Standards) from an agency’s operational implementation standard, which may legitimately exceed that floor. The prior wording could have incorrectly penalized a defensible accessibility strategy in which an agency adopts WCAG 2.1 or 2.2 as its operational standard. Hard fail condition narrowed to misclaiming a higher WCAG version as the 508 legal threshold, not to implementing it.
- Completed the formal **three-component ECD implementation statement** in the ECD section (Section 2.3): the **Student Model** (the competency table), **Evidence Model** (RC-01 through RC-11 as observable rubric indicators), and **Task Model** (A-01 through A-17 as performance evidence task specifications) are now explicitly named and mapped. Previously the Evidence Model and Task Model were structurally present but unlabeled; this addition completes the formal ECD implementation per Mislevy, Steinberg & Almond (2003).
- Corrected **CW-07 (DCAA Pre-Award Survey Checklist)**: relabeled as **[Governance Analogue – Documentation Discipline]** and corrected the Operational Requirement cell, which previously misclaimed that the SF 1408 pre-award survey evaluates training-system adequacy. The SF 1408 evaluates **accounting system adequacy** (cost segregation, timekeeping, labor distribution); the “no blanks” documentation discipline is retained as a structural analogue to artifact metadata completeness requirements. This corrects a scope accuracy error that was internally inconsistent with the blueprint’s own standard-fidelity posture.
- Added **Crosswalk Reading Guide** (Authority Tier Definitions) to Section 4 introduction, explicitly defining three authority tiers: (1) Direct Requirement, (2) Governance Analogue, (3) Research/Standards Anchor. This



makes the tiering mechanism unmissable for reviewers and directly addresses the concern that all 38 authorities might otherwise appear equally operational.

- Added **MPI architectural safety valve** sentence to Section 6 (nested MPI recursion paragraph): “Non-instructional operational steps may be inserted within or between MPI phases where required by the instructional context without breaking the overarching MPI structure.” This prevents reviewers from interpreting the recursive MPI model as brittle or as requiring unnatural sequencing for tooling, onboarding, or troubleshooting activities.
- Corrected **version drift** in the Document Status and Implementation Disclaimer (closing section), which still referenced “Version 0.2” while document control indicated v0.3. Credibility-critical inconsistency now resolved. Added **pagination convention statement** to Document Control block justifying recto/verso page layout and “This page intentionally left blank” usage, per standard controlled-document conventions.
- Added **FRONT MATTER section with auto-updating Table of Contents** (pp. i–ii), structured as a controlled Word section: TOC field with clickable hyperlinks to all 13 numbered sections and 6 Section 2 subsections, with hyperlinks enabled (**right-click → Update Field** to refresh page numbers). Implemented three-section Word document structure: (1) cover/blank — no footer; (2) front matter — roman numeral footer (page i of N); (3) body — arabic footer (REGLXD-GRAD-BP-001 | Page N of M | Version 0.3 (Draft)).
- Rationalized **header/footer conventions** per government controlled-document standards: removed “| v0.3” from header (version belongs in footer, not header, per GPO/DoD-adjacent convention); designer name retained in header right column (appropriate for portfolio artifact — analogous to “Prepared By” field on government submittals, identifies the artifact’s author on every page). Footer carries version identifier; header carries document title and author attribution.

IMPACT : These revisions complete the documentation of the **Evidence-Centered Design assessment architecture**, clarify the **scope and role boundaries of the course terminal objective**, complete the three-component ECD implementation declaration, and refine accessibility baseline criterion logic to eliminate a false negative risk against legitimate agency operational standards. The updates **do not modify the course architecture, module sequence, learning objectives, artifact catalog (A-01–A-17), production artifact set (P-01–P-10), or regulatory coverage (CW-01–CW-38)**. All instructional structure and assessment logic remain unchanged.

VERSION 0.4 — 2026-03-06

CHANGES

- Corrected **Section 11 section-banner title** from "SAMPLE FILLED TEMPLATES — INCIDENT REPORTING TRACK" (erroneous duplicate of Section 10 banner) to "DELIVERY, TECHNOLOGY, AND OPERATIONAL CONTROLS REFERENCE." Updated **TOC** accordingly. (Credibility-critical document control correction.)
- Added **Expected Learner Time Commitment table** to Section 2.1, specifying weekly learner commitment by track (standard: 9–12 hours/week; accelerated: 16–22 hours/week), artifact cadence, and prerequisite expectations; includes prose note directing readers to Addendum A for full learner profile grounding.
- Added **"LIFECYCLE STAGE SEQUENCE" column to the A-01 through A-17 Artifact Catalog table** in Section 5.1, mapping each artifact through defined lifecycle transitions (Draft → In-Review → Accepted → Released → Archived, with artifact-specific variants for A-12 and A-17). Added **governance note** citing ISO/IEC/IEEE 10007:2017 (CW-32) lifecycle conventions.
- Corrected **SCORM 2004 characterization** in Section 13.4: replaced unqualified "unnecessary complexity without benefit" framing with accurate assessment of sequencing capabilities and appropriate use contexts, including government LMS interoperability constraints.
- Corrected **NIST SP 800-92r1 citation** in Section 12.1: removed Draft/IPD status and updated DOI from ` .ipd ` to **final publication URL** (final document published September 2023). (Credibility-critical reference correction.)
- Removed **duplicate Trusted Tester reference** in Section 12.1: **consolidated two entries** pointing to the same URL under single GSA-attributed citation; corrected **agency attribution** from DHS to GSA for Section508.gov resource.



- Added **four academic references** to Section 12.2 (APA 7th ed.): Baldwin & Ford (1988), Blume et al. (2010), Holton et al. (2007), and Dick et al. (2015), addressing the training transfer and systematic design literature gaps identified in the v0.3 review.
- Added **two items to Section 13.5 pre-delivery verification list**: item (9) NIST SP 800-92r1 post-finalization status check; item (10) TRADOC Reg 350-70 currency verification.
- Added **Section 7.0: Master Lesson Inventory** — single consolidated table of all 25 lessons with lesson ID, module, title, estimated time, MPI phase, primary artifact output(s), and primary CW anchors. Supplements but does not replace the full module specifications in Sections 7.1–7.5.
- Added **Section 8.4: Formative Assessment Rubrics** — includes (a) **Peer Review Calibration Rubric (PR-01 to PR-05)**, a 3-level, 5-criterion instrument for learner peer review of artifacts, with escalation triggers for PR-01 and PR-03; and (b) **Module Gate Readiness Checklist for instructor use** at each of the five module gates.
- Added **Section 10.3: A-03 Risk Register filled excerpt** — two complete risk entries (RSK-001: audit record completeness risk; RSK-002: Section 508 conformance risk) in the notional incident reporting scenario, consistent with the Section 10 example set.
- Added **Section 10.4: A-04 Traceability Matrix filled excerpt** — five representative trace rows covering FAR 52.203-13, FAR Subpart 4.7, NIST SP 800-171 Rev. 3 Control 3.1.1, Revised Section 508, and 2 CFR § 200.303, each traced through the full evidence chain from regulatory requirement to retention period.
- Added **Addendum A: Front-End Analysis — Notional Government Contractor Context (Proxy Sample)**, comprising five subsections: Organizational Context (A.1), Performance and Needs Analysis (A.2), Learner Profile and Context Analysis (A.3), System Constraints and Configuration Audit (A.4), and Solution Justification (A.5). Grounds all course design decisions in a documented, systematically derived front-end analysis consistent with Dick et al. (2015).
- Added **Addendum B: Course Process and Decision Map**, comprising Entry and Prerequisite Decision Flow (B.1, seven decision points DP-00 through DP-07), Track Comparison and Schedule Overview (B.2), and Revision Cycle Governance Rules (B.3, five operational rules).
- Added **Addendum C: Representative Lesson Design Document — Lesson 1.1**, comprising Lesson Metadata (C.1), Lesson Content and Sequence (C.2, five-stage instructional sequence with timing, format, rationale, and formative checks), Accessibility and QA Checklist (C.3), and Instructor Notes (C.4, including productive failure framing note and vILT calibration guidance). References Kapur (2016) — flagged for incorporation into Section 12.2 upon full lesson design development.
- Updated **TOC** to reflect all new sections (7.0, 8.4, 10.3, 10.4) and addenda (A, B, C).
- Updated all version **metadata** (cover page, header/footer, document status block) to Version 0.4.

IMPACT: These revisions improve the **evidence base, workload disclosure, learner analysis, formative assessment infrastructure, additional filled template set, and operational addenda** constituting Version 0.4. No changes were made to course module architecture, lesson count, artifact IDs (A-01 through A-17), P-doc set (P-01 through P-10), or regulatory crosswalk count (CW-01 through CW-38). Version 0.4 represents the document in its portfolio-presentation and course-development-specification form.

VERSION 0.5 — 2026-03-08

CHANGES

PHASE 1 — ORIGINAL v0.5 CONTENT ITEMS

- Added Addendum D: Artifact Template Library — A-01 through A-17 complete filled sample templates using the notional government contractor proxy, constituting the authoritative template library for course delivery use.
- Added A-17 submission specification (Addendum D, D.17): three-table structure comprising Artifact Index and Gate History (Table 1), Submission Checklist with DP-05 and DP-06 entry conditions (Table 2), and Integrative RC Scoring Reference mapped to all 11 RC criteria with Score 3/4 descriptors and hard-fail conditions (Table 3).
- Confirmed Kapur (2016), Collins et al. (1989), and Knowles et al. (2015) present in Section 12.2; updated Addendum C, C.4 instructor note flag to indicate citation is incorporated.



- Corrected learner time-commitment estimates in Section 2.1: Standard track 9–12 hrs/week (corrected from 10–12); Accelerated track 16–22 hrs/week (corrected from 18–20). Derivation note added below Section 2.1 table specifying instruction + artifact production breakdown. Corresponding prose updated in Addendum A.
- Added Section 8.5: Summative Outcome Evaluation Framework (Kirkpatrick Levels 1–4). Four-row table with evaluation questions, methods, and timelines for all four levels. Levels 1–2 rows cross-reference existing formative instruments; Levels 3–4 specify post-completion follow-up protocols for transfer and longitudinal results evaluation.
- Added cross-reference from Section 8.2 (Acceptance Gate Summary) to A-17 integrative scoring tables in Addendum D, D.17.
- Migrated Section 13.5 pre-delivery checklist items to Addendum E: Pre-Delivery Verification Protocol; retained cross-reference sentence in Section 13.5.
- Added Addendum F: Policy Document Exemplars — complete filled templates for all ten controlled policy documents (P-01 through P-10). TOC entry added.
- Added Section 2.8 (formerly 2.6.1): Notional POI Structure — Illustrative Alignment to TRADOC TR 350-70 (10-row table mapping POI fields to blueprint sections). Closes CW-15 POI alignment traceability gap.
- Added ADDIE phase mapping and SAM-aligned iteration callout in Section 1: explicitly maps five ADDIE phases to blueprint sections and documents the SAM-compatible iterative development reality (v0.1–v0.5 successive approximation), establishing that ADDIE and SAM are complementary rather than competing frameworks in the government contracting context.
- Added Addendum D cross-reference note in Section 10 (SAMPLE TEMPLATES — INCIDENT REPORTING TRACK): directs users to Addendum D as the authoritative template library; notes that Section 10 excerpts are retained as in-line design reference material.

PHASE 2 — DOCUMENT CONTROL AND HARD-FAIL REMEDIATION

- Corrected document ID on cover page from REGLXD-GRAD-BP-003 to REGLXD-GRAD-BP-001 (RC-11 hard-fail resolution); corrected in both cover page title block and both page footers (4 locations total).
- Corrected release date on cover page from 2026-03-05 (the v0.3 date) to 2026-03-08 (RC-11 hard-fail fully resolved).
- Renumbered Section 2.6.1 heading to Section 2.8: corrected subsection number in both the body heading and the TOC display text to align with the document’s section architecture.
- Corrected “pre-verification verification” typo in pre-delivery checklist to “pre-delivery verification” (RC-10 plain-language defect cleared).
- Removed duplicate mid-sentence ECD passage from v0.3 changelog bullet; entry now reads cleanly through its closing citation (Mislevy, Steinberg & Almond, 2003).
- Removed orphaned duplicate DEPLOYMENT NOTE row from Section 11.2 table; single authoritative row retained.
- Added CUI DETERMINATION field to Document Control block on cover page: “NOT APPLICABLE — PORTFOLIO PROTOTYPE. NO CUI, PII, OR CLASSIFIED INFORMATION IS PRESENT IN THIS DOCUMENT. SCENARIOS ARE SANITIZED. SEE SECTION 13 AND ADDENDUM E.” (RC-06 closed).
- Added v0.1 baseline entry to Addendum G (version changelog) as the first entry before v0.2: establishes SAM Preparation phase initial prototype date (2025-08-01, estimated), five-module architecture, lesson and artifact ID catalog, and placeholder crosswalk. Documents version lineage traceability per RC-07.
- Added NARA-COMPLIANT FILENAME field to Document Control block (20260308_REGLXD-GRAD-BP-001_v0.5_CAS.docx) and added Section 13.6 DOCUMENT NAMING AND NARA COMPLIANCE: explains the hybrid filename convention and establishes the canonical NARA name for filing and retrieval. RC-08 hard-fail resolved.
- Relocated Draft Blueprint Changelog from Section 14 to Addendum G: BLUEPRINT VERSION HISTORY AND CHANGE LOG. Section 14 eliminated as a numbered section; addendum heading style applied consistent with Addenda A–F. TOC updated (Section 14 entry removed; Addendum G entry added). All in-body cross-references



from “Section 14” updated to “Addendum G.” v0.2 IMPACT statement appended with fulfillment note per the v0.2 temporary-designation commitment.

PHASE 3 – SUBSTANTIVE CONTENT ADDITIONS

- Added Universal Design for Learning (UDL) paragraph to Section 11.3 (after ACCESSIBILITY block): documents application of CAST (2018) UDL principles across all three means (representation, engagement, action/expression) as a course design constraint. Added corresponding UDL Implementation Note row to P-05 (Accessibility Compliance Policy) in Addendum F.
- Added ASSESSMENT INTEGRITY statement to P-01 (Course Administrative Data) in Addendum F: original work requirement for all A-series and P-series artifacts, peer review attribution in A-12, artifact recycling prohibition, and escalation pathway for suspected violations.
- Added Section 9.2: PRE-LAUNCH PILOT PROTOCOL (RECOMMENDED): specifies 3–8 learner pilot cohort, four required deliverables (time-on-task log, scored artifact sample, vILT recording, written debrief), and documentation of findings in A-15 (CAPA Plan). TOC entry added.
- Added SCENARIO DIVERSITY NOTE to Addendum A, Section A.3 (LEARNER PROFILE AND CONTEXT ANALYSIS): design constraint requiring varied names, gender representations, and role titles across all scenario characters in artifact templates, vILT simulations, worked examples, and assessment prompts. Explicitly scoped as a content development constraint, not an audience expansion.
- Added MATERIALS LICENSING REVIEW field to P-10 (Curriculum Maintenance and Version Control Policy) in Addendum F: copyright status review requirement before each cohort, preference hierarchy (federal public domain → Creative Commons → institutional license → per-use approval), and documentation in A-12 integrated with annual maintenance cycle.
- Added Section 8.8: MASTER OBJECTIVES-TO-ASSESSMENT ALIGNMENT MATRIX: seven-column table (Objective ID | Objective Summary | Primary Artifact(s) | Supporting Artifact(s) | Module | Rubric Criteria | Gate) with rows for the TLO and EO.M1–EO.M5. Provides single-lookup traceability from any objective to its complete evidence chain. TOC entry added.
- Added Plain Writing Act of 2010 (Pub. L. No. 111-274, 124 Stat. 2861) and U.S. General Services Administration Federal Plain Language Guidelines (PlainLanguage.gov) to Section 12.1 in alphabetical order. Closes RC-10 regulatory traceability gap between the plain language standard invoked in RC-10 and the reference section.
- Added Section 13.7: BLUEPRINT DOCUMENT GOVERNANCE – RACI note identifying Author/Designer, SME Review (not yet designated for portfolio prototype), Approval Authority (not yet designated), and four mandatory review triggers (regulatory update to a cited CW source; annual calendar review; CMMC phase change or GAGAS effective date passage; identified compliance error). Closes RC-09 self-referential governance gap for the blueprint document itself.
- Conducted internal cross-reference audit across all Section X, Addendum X, CW-XX, A-XX, and P-XX references: confirmed no residual “Section 14” navigation references remain; confirmed no “Addenda A through F” references remain (all updated to “Addenda A through G”); verified TOC entries present and bookmarks linked for Sections 8.8, 9.2, 13.6, and 13.7, and for Addendum G.

IMPACT: Version 0.5 constitutes both the first full revision cycle following initial prototype delivery (v0.4) and a self-referential quality audit cycle in which the document was evaluated against its own RC-01–RC-11 rubric criteria. All identified hard-fail conditions (RC-08: NARA filename non-compliance; RC-11: document ID and release date errors on cover page) are fully resolved. The aggregate self-assessed score advances from a pre-remediation 32/44 (72.7%, two hard-fail conditions) to approximately 38–42/44 (86–95%) with no remaining hard-fail conditions. Thirty substantive changes are incorporated across three groups: eleven original v0.5 content items; ten Phase 1 document control and hard-fail remediation actions; and nine Phase 2 substantive content additions (UDL integration, assessment integrity governance, pre-launch pilot protocol, scenario diversity design constraint, materials licensing review, master objectives-to-assessment alignment matrix, Plain Writing Act regulatory citation, blueprint RACI governance, and cross-reference audit). The document is substantively complete for initial SME review and portfolio presentation distribution. Items addressed in v0.6: multi-source objective audit cycle; see VERSION 0.6 entry.

SYNTHESIS REVISION – 2026-03-10



Multi-source synthesis across all v0.4 and v0.5 versions confirmed v0.5-Phase3 as the strongest base. Four heading-style and section-numbering corrections applied: (1) Section 8.8 heading style corrected from AddendaHeading2A1 to Heading3 (heading was mis-classified, causing the full MASTER OBJECTIVES-TO-ASSESSMENT ALIGNMENT MATRIX content to render as an addendum subsection instead of a numbered body section); (2) Section 2.8 heading text updated to include the “2.8.” prefix, which was present in the TOC but absent from the body heading (alignment gap); (3) Section 13.6 heading text updated to include the “13.6.” prefix (same gap); (4) Section 13.7 heading text updated to include the “13.7.” prefix (same gap). No content was removed, reorganized, or altered. No new content was added. Document output filename updated to 20260310_REGLXD-GRAD-BP-001_v0_5.docx per NARA naming convention.

VERSION 0.6 — 2026-03-11

CHANGES

DOCUMENT CONTROL AND METADATA

- Updated all version metadata to Version 0.6: cover page Document Control VERSION field; STATUS field (REVISED DRAFT V0.6); Release Date updated to 2026-03-11; NARA-compliant filename updated to 20260311_REGLXD-GRAD-BP-001_v0.6_CAS.docx; footer version indicators in all body sections; Course Design Summary VERSION field corrected from the residual “0.2” (which was a stale pre-release value) to “0.6”; SAM succession list updated to v0.6 (current).
- Corrected Document Control FORMAT field: replaced erroneous Document ID echo value (REGLXD-GRAD-BP-001 / SIMULATED CONTROL DESIGNATION) with correct delivery format descriptor: BLENDED (ASYNC LMS + vILT) with pointer to Section 2.1 for full specification. (RC-11 document control defect resolved.)
- Corrected OWNER credential format: “MED” (non-standard all-caps) changed to “M.Ed.” per GPO style for academic degree abbreviations (M.A., M.S., Ph.D., M.Ed.).
- Corrected LMS Platform delivery format field: “FEDRAMP-ACCEPTABLE (AUTH. REQUIRED)” changed to “FEDRAMP-AUTHORIZED (ATO REQUIRED)” — “FedRAMP-acceptable” is not a formal FedRAMP designation; the correct term is “FedRAMP-authorized”; “AUTH.” disambiguated to “ATO” (Authorization to Operate) to eliminate ambiguity with “authentication.” Consistency with “FedRAMP-authorized” in Section 2.1 Technology Stack now maintained throughout.

CROSS-REFERENCE CORRECTIONS

- Corrected cross-reference in Section 11.2 heading and TOC entry: “SEE SECTION 2.5 FOR FULL SPECIFICATIONS” changed to “SEE SECTION 2.6 FOR FULL SPECIFICATIONS.” Section 2.5 is the Student Competency Model (ECD); Section 2.6 is the Technology Architecture and Stack Decisions—the correct referent for technology specifications.
- Corrected cross-reference in Section 2.1 INSTRUCTOR MODEL field: “Role specifications in P-02 Instructor Guide” changed to “Role specifications in P-04 Instructor Qualification Standard.” P-02 is the Prerequisite Assessment and Diagnostic Protocol; P-04 is the Instructor Qualification Standard—the correct document for instructor role specifications.

TYPOGRAPHICAL, STYLE, AND CONSISTENCY CORRECTIONS

- Corrected duplicate section number in TOC entry for Section 2.8: “2.8. 2.8. NOTIONAL POI STRUCTURE” reduced to “2.8. NOTIONAL POI STRUCTURE.”
- Added missing closing parenthesis in TOC Section 5.2: “TRAINING SUPPORT PACKAGE (TSP) (P-01 TO P-10” corrected to “TRAINING SUPPORT PACKAGE (TSP) (P-01 TO P-10).”
- Corrected systemic en dash errors throughout: numeric ranges that used hyphens replaced with en dashes per GPO style: “0-4” → “0–4,” “1-4” → “1–4,” “4-5 hrs/wk” → “4–5 hrs/wk,” “8-10 hrs/wk” → “8–10 hrs/wk” in Standard and Intensive Track descriptions (Sections 2.1 and Document Control). Note: alphanumeric code identifiers (A-01, P-02, RC-01, CW-01, FAR 52.203-13) correctly retain hyphens and were not altered.
- Corrected numeral consistency in Section 1.1: “an eight-week (or 5-week accelerated)” changed to “an 8-week (or 5-week accelerated)” — both durations are now numerals, consistent with GPO style for unit modifiers in comparative constructions.



- Corrected title inconsistency: “Federal R&D and Missions Programs” (plural) changed to “Federal R&D and Mission Programs” (singular) in cover page subtitle line and Section 1.1 body text. The singular form is correct and consistent with the Section 2.1 Course Title field and Section 13.5 rationale note.
- Corrected Duration label: “STANDARD TRACK VS INTENSIVE TRACK” changed to “STANDARD TRACK OR INTENSIVE TRACK”—tracks are alternatives, not adversarial opposites; “vs” implies opposition where “or” is the precise term for mutually exclusive options.

CITATION AND EVIDENCE CORRECTIONS

- Corrected SAM citation style in Section 1.1: “(SAM; Allen Interactions, 2012)” (non-standard hybrid format) changed to “(Allen, 2012)” per APA 7th ed. convention. Allen Interactions is the organization; the author of record is Michael Allen. Citation now consistent with APA style used throughout Section 12.2.
- Corrected Domain Evidence table citation error: “Frontiers, 2025” (publisher/journal cited as author) removed; citation now reads “Botha & Van der Merwe, 2025; Lange, 2021”—the actual authors/works supporting the e-learning transfer claim. “Frontiers” is the publisher of the Botha & Van der Merwe article and is not a citable author entity. Lange (2021) added as a second supporting source.
- Corrected GAGAS effective date citation: single date “effective December 15, 2025” expanded to dual-date distinction: “effective December 15, 2025 for financial audits and December 15, 2026 for performance audits,” consistent with GAO-24-106786 and the pre-delivery verification item in Addendum E / Section 13.5.
- Added Kirkpatrick model version specification to Section 8.5: framework now explicitly identified as the New World Kirkpatrick Model (Kirkpatrick & Kirkpatrick, 2016) to distinguish from the original four-level model. The New World model differs substantively at Levels 3 and 4 (outcome causation chains and leading indicators); the prior unattributed “Kirkpatrick” reference was incomplete for a compliance-focused document.

CONTENT CLARIFICATIONS AND ADDITIONS

- Clarified ADDIE phase mapping in Section 1.1: Implementation phase corrected to reference Addendum E as the primary implementation artifact (pre-delivery verification protocol). Added clarifying note that Section 12 (References) is a documentation artifact supporting all phases rather than an implementation artifact, and that Section 13 (Designer Notes) captures design-phase rationale. Prior mapping of Sections 12 and 13 to the Implementation phase was a conceptual misclassification.
- Added vILT acronym expansion on first use in Section 2.1 FORMAT field: “one 90-min vILT workshop per module” now reads “one 90-min vILT (virtual instructor-led training) workshop per module.”
- Added estimated time commitment for Week 0 (optional bridge/onboarding week) in Section 2.1: “Estimated learner time: 2–4 hrs (diagnostic + orientation activities; tracked separately from weekly commitment totals).” Prior entries for Standard and Intensive tracks specified weekly hour commitments; Week 0 had no stated time estimate, creating a gap in total instructional hours accounting.
- Added Section 12.3 citation style specification: heading updated to “LABOR MARKET AND INDUSTRY REFERENCES (GPO/APA STYLE PER SOURCE TYPE)” to match the explicit style designations in Sections 12.1 (GPO Style) and 12.2 (APA 7th Ed. Style). Mixed-style rationale: government and regulatory labor market sources follow GPO; academic and industry-research sources follow APA 7th ed., consistent with Section 12 preamble.
- Clarified NARA naming convention reference in Section 2.1 FORMAT field: “NARA naming conventions” (overstated as if NARA prescribes a single mandatory format) changed to “NARA-consistent naming conventions (YYYYMMDD_ArtifactID_vX.X_Initials per Section 13.6).” NARA Bulletin 2015-04 and associated guidance recommend consistent, descriptive naming but do not mandate a single universal format; the document’s own convention (defined in Section 13.6) is the operative standard.

IMPACT: Version 0.6 constitutes a comprehensive multi-source objective audit cycle addressing errors and inconsistencies identified through systematic cross-referencing of the v0.5 document against its own stated standards. Nineteen distinct corrections are incorporated across five categories: (1) document control and metadata (version fields, NARA filename, FORMAT field copy-paste error, credential format, FedRAMP terminology); (2) cross-reference corrections (Section 11.2 technology reference from 2.5 to 2.6; INSTRUCTOR MODEL P-02 to P-04); (3) typographical and style corrections (en dash systematic fix; duplicate 2.8 in TOC; missing parenthesis in TOC 5.2; numeral consistency;



title singular/plural); (4) citation and evidence corrections (SAM citation APA format; Frontiers-as-author error; GAGAS dual effective dates; Kirkpatrick model version specification); (5) content clarifications (ADDIE Implementation phase mapping; vILT acronym expansion; Week 0 time estimate; Section 12.3 style designation; NARA naming precision). No changes were made to course module architecture, lesson count, artifact IDs (A-01 through A-17), P-doc set (P-01 through P-10), regulatory crosswalk (CW-01 through CW-38), or rubric criteria (RC-01 through RC-11). Note: the 106-point capstone rubric total, identified as a potential error in external audit, was verified as correct—the rubric uses weighted criteria (RC-01=20, RC-02=15, RC-03=15, RC-04=15, RC-05=10, RC-06=10, RC-07=5, RC-08=5, RC-09=4, RC-10=4, RC-11=3), summing to exactly 106. The “0–4 per criterion” description refers to the ordinal scale levels (0=not submitted, 1=non-compliant, 2=deficient, 3=compliant, 4=defensible/exemplary) applied within each weighted criterion, not a uniform 4-point multiplier.