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PROGRAM OF INSTRUCTION

# POI-MSS



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## PROGRAM OF INSTRUCTION

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*Maven Smart System (MSS) Training Program*

HEADQUARTERS  
UNITED STATES ARMY EUROPE AND AFRICA  
(USAREUR-AF)  
Wiesbaden, Germany

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**26 MARCH 2026**

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# PROGRAM OF INSTRUCTION

## MAVEN SMART SYSTEM (MSS) TRAINING PROGRAM

### USAREUR-AF Operational Data Team — C2DAO

<b>Program Designation</b>	MSS-POI-001
<b>Proponent</b>	USAREUR-AF C2DAO
<b>Effective Date</b>	March 2026
<b>Review Cycle</b>	Annual or upon major platform update
<b>Authority</b>	C2DAO Data Governance Directive
<b>Classification</b>	—

## CHAPTER 1 — AUTHORITY, PURPOSE, AND SCOPE

### 1-1. Authority

Published under authority of the USAREUR-AF C2DAO. Establishes the official curriculum, evaluation standards, and resource requirements for all MSS training within the USAREUR-AF AOR.

### 1-2. Purpose

Defines course content, instructional methods, evaluation criteria, and resource requirements for each training level. Serves as the authoritative reference for course scheduling, instructor preparation, student enrollment, and program assessment.

### 1-3. Scope

This POI covers twenty-five courses in six tiers, plus the Senior Leader course (EXEC), the Foundry Bootcamp (FBC) event program, and two Train-the-Trainer (T3) courses:

Tier	Courses	Notes
1 — Foundation	SL 1	Required for all USAREUR-AF personnel
2 — Builder	SL 2	All staff building or maintaining data products
3 — Advanced Builder	SL 3	Data-adjacent specialists and unit data leads
4a — WFF Functional	SL 4A through SL 4F	Warfighting function staff; prereq SL 3
4b — Specialist	SL 4G through SL 4O	Role-specific specialist training; prereq SL 3
5 — Advanced Specialist	SL 5G through SL 5O	Advanced role-specific training; prereq corresponding SL 4
—	EXEC (Senior Leader)	<b>Outside TM chain.</b> 1 day; O-5/E-9+ personnel. Replaces SL 1 for senior leaders. No further progression.
—	Foundry Bootcamp (FBC)	<b>Outside TM chain.</b> Quarterly applied build event; prereq SL 2 + validated project; no TM credit. See FBC-SOP-001.
—	T3-I (Instructor Certification)	<b>Outside TM chain.</b> 5 days classroom + supervised practicum; prereq SL 3 + C2DAO selection.
—	T3-F (MSC Force Multiplier)	<b>Outside TM chain.</b> Half day; prereq SL 2 + CDR nomination. Produces Unit Data Trainers.

## 1-4. Prerequisite Chain

EXEC (senior leaders – 0-5/E-9+ – terminal, no further progression)

SL 1 (all personnel)

└─ SL 2 (builders)

└─ T3-F (MSC Force Multiplier – Unit Data Trainer; + CDR nomination)

└─ SL 2 (builders)

└─ SL 3 (advanced builders / data-adjacent / WFF functional staff)

└─ T3-I (Instructor Certification; + C2DAO selection)

└─ SL 4A through SL 4F (WFF functional tracks –

INT/FIRES/M2/SUST/PROT/MC staff)

└─ SL 4G (ORSA) → SL 5G (Advanced ORSA)

└─ SL 4H (AI Engineer) → SL 5H (Advanced AI Engineer)

└─ SL 4J (Program Manager) → SL 5J (Advanced Program Manager)

└─ SL 4K (Knowledge Manager) → SL 5K (Advanced Knowledge Manager)

└─ SL 4L (Software Engineer) → SL 5L (Advanced Software Engineer)

└─ SL 4M (ML Engineer) → SL 5M (Advanced ML Engineer)

└─ SL 4N (UI/UX Designer) → SL 5N (Advanced UI/UX Designer)

└─ SL 4O (Platform Engineer) → SL 5O (Advanced Platform Engineer)

### 1-5. Security Clearance Requirements

No security clearance is required for course enrollment or participation. Training materials are marked CUI where indicated.

**NOTE**

Trainees who will apply MSS skills to classified data environments post-graduation must hold appropriate clearances per their unit's security manager. Clearance verification is the responsibility of the sponsoring unit, not the MSS training program.

**NOTE**

Practical exercises use synthetic data within the MSS Training Environment. Where exercise materials carry CUI markings, trainees and instructors will handle, store, and dispose of those materials IAW AR 25-22 (*The Army Privacy Program*) and DoDI 5200.48 (*Controlled Unclassified Information*). CUI-marked exercise materials will not be removed from the training environment or transmitted via unencrypted channels.

### 1-6. Authoritative References

Publication	Title	Relevance
AR 350-1	Army Training and Leader Development	Master regulation for Army training policy; governs all institutional training programs
TR 350-70	Army Learning Policy and Systems	TRADOC master regulation governing POI standards, course administration, and learning products
TP 350-70-14	Training Development in Institutional Domain	TRADOC pamphlet governing POI construction, course design, and instructional system development
TP 350-70-7	Army Educational Processes	TRADOC pamphlet governing curriculum development, assessment design, and evaluation methodology
ADP 7-0	Training	Army training doctrine; establishes principles for training management across the force
FM 7-0	Training	Unit training management procedures; provides commander guidance for planning, executing, and assessing training

**NOTE**

TR 350-70 and TP 350-70-x publications are published by TRADOC at [adminpubs.tradoc.army.mil](http://adminpubs.tradoc.army.mil), not DAAPD.

## 1-7. Training Environment

All MSS training is conducted in the **MSS Training Environment** — a dedicated Foundry instance with synthetic operational data. No training is conducted in the production MSS environment. Trainees do not ingest, modify, or export production operational data during training.

## CHAPTER 2 — PROGRAM OVERVIEW

### 2-1. Course Summary

Course	Title	Tier	Duration	Hours	Prerequisite
SL 1	Maven User	Foundation	1 day	8	None
SL 2	Builder	Builder	5 days	40	SL 1
SL 3	Advanced Builder	Advanced	5 days	40	SL 1, SL 2
SL 4A	Intelligence WFF	WFF Functional	3 days	24	SL 1, SL 2, SL 3 (Required)
SL 4B	Fires WFF	WFF Functional	3 days	24	SL 1, SL 2, SL 3 (Required)
SL 4C	Movement & Maneuver WFF	WFF Functional	3 days	24	SL 1, SL 2, SL 3 (Required)
SL 4D	Sustainment WFF	WFF Functional	3 days	24	SL 1, SL 2, SL 3 (Required)
SL 4E	Protection WFF	WFF Functional	3 days	24	SL 1, SL 2, SL 3 (Required)
SL 4F	Mission Command WFF	WFF Functional	3 days	24	SL 1, SL 2, SL 3 (Required)
SL 4G	ORSA Specialist	Specialist	5 days	40	SL 1, SL 2, SL 3 (Required)
SL 4H	AI Engineer	Specialist	5 days	40	SL 1, SL 2, SL 3 (Required)
SL 4M	ML Engineer	Specialist	5 days	40	SL 1, SL 2, SL 3 (Required)

Course	Title	Tier	Duration	Hours	Prerequisite
SL 4J	Program Manager	Specialist	4 days	32	SL 1, SL 2, SL 3 (Required)
SL 4K	Knowledge Manager	Specialist	4 days	32	SL 1, SL 2, SL 3 (Required)
SL 4L	Software Engineer	Specialist	5 days	40	SL 1, SL 2, SL 3 (Required)
SL 4N	UI/UX Designer	Specialist	5 days	40	SL 1, SL 2, SL 3 (Required)
SL 4O	Platform Engineer	Specialist	5 days	40	SL 1, SL 2, SL 3 (Required)
SL 5G	Advanced ORSA	Advanced Specialist	5 days	40	SL 4G (Required)
SL 5H	Advanced AI Engineer	Advanced Specialist	5 days	40	SL 4H (Required)
SL 5M	Advanced ML Engineer	Advanced Specialist	5 days	40	SL 4M (Required)
SL 5J	Advanced Program Manager	Advanced Specialist	3 days	24	SL 4J (Required)
SL 5K	Advanced Knowledge Manager	Advanced Specialist	3 days	24	SL 4K (Required)
SL 5L	Advanced Software Engineer	Advanced Specialist	5 days	40	SL 4L (Required)
SL 5N	Advanced UI/UX Designer	Advanced Specialist	3 days	24	SL 4N (Required)
SL 5O	Advanced Platform Engineer	Advanced Specialist	3 days	24	SL 4O (Required)

#### NOTE

SL 4A–F (WFF functional tracks) require SL 1, SL 2, and SL 3 as hard prerequisites. SL 4G–O (specialist tracks) and SL 5G–O (advanced specialist tracks) also require SL 3 as a hard prerequisite. There are NO SL 5A–F tracks.

**Total program hours (full progression to any single WFF or specialist track):** 128 hours (SL 1 through SL 4G–O); 112 hours (SL 1 through SL 4A–F) **Total program hours (full progression to any single advanced specialist track):** 168 hours (SL 1 through SL 5G–O)

## 2-2. Training Philosophy

MSS training is competency-based, not time-based. Go/No-Go evaluation at the end of each course is the authoritative measure of completion. Training emphasizes:

Principle	Description
Build, break, recover	Lab time includes structured error-recovery before evaluation
Design before tool	SL 3+: trainees document design before opening the tool
Operational context	All scenarios use operationally plausible data and mission contexts
Governed practice	Data governance, naming, and access control are integrated into every lab

## 2-3. Instructional Methods

Code	Method	Description
LEC	Lecture	Instructor-delivered; students in listening/note-taking role
LAB	Laboratory	Hands-on tool exercise at workstation
DIS	Discussion	Structured facilitated discussion; student contributions required
SEM	Seminar	Small-group intensive; used for safety blocks and design critique
BRF	Brief	Short instructor-led overview or scenario introduction
REV	Review	Structured review of prior material; student Q&A focused
EVAL	Evaluation	Practical exercise; graded; no instructor assistance permitted
WKS	Workshop	Design workshop; student product reviewed by instructor/peers
SPRINT	Foundry Bootcamp	Self-directed applied build with SME consultation available; used exclusively in FBC events; no instructor delivery

## CHAPTER 3 — BLOCKS OF INSTRUCTION

### 3-1. SL 1: Maven User

**Course length:** 1 day (8 hours) | **Evaluation:** Practical exercise (6 tasks, Go/No-Go)

Block	Title	Hours	Method	Reference
1	MSS Overview and Data Literacy Fundamentals	1.0	LEC	TM-10 Ch 1; Data Literacy Technical Reference Ch 1
2	Login and Navigation: CAC Authentication, Project Access	1.0	LAB	TM-10 Ch 2
3	Workshop Applications: Tables, Filters, Dashboards	1.0	LAB	TM-10 Ch 3
4	Actions: Executing Status Updates and Form Submissions	1.0	LAB	TM-10 Ch 4
5	Contour: Building a Basic Chart and Applying a Filter	1.0	LAB	TM-10 Ch 5
6	Quiver: Exploring Object Types, Filters, and Exporting Views	1.0	LAB	TM-10 Ch 6
7	AIP Interface: Submitting a Query; Understanding AI Output Limitations	0.5	LAB	TM-10 Ch 7
8	Classification Markings and Authorized Export Procedures	0.5	LEC	TM-10 Ch 8
9	Practical Exercise (Evaluated)	1.0	EVAL	TM-10 Practical Exercise Guide
	<b>Total</b>	<b>8.0</b>		

### 3-2. SL 2: Builder

**Course length:** 5 days (40 hours) | **Evaluation:** Practical exercise (11 tasks, Go/No-Go)

#### Day 1 — Project Fundamentals and File Ingestion

Block	Title	Hours	Method	Reference
1	Project Creation: Naming Conventions, Markings, Folder Structure	1.5	LAB	TM-20 Ch 2

Block	Title	Hours	Method	Reference
2	File Ingestion: Upload CSV, Inspect Schema, Types, Row Count	0.75	LAB	TM-20 Ch 3 Sec 3-1
3	Dataset Explorer: Column Profiling, Null Detection, Type Mismatches	1.0	LAB	TM-20 Ch 3 Sec 3-2
4	Pipeline Builder Orientation: Canvas, Step Library, I/O Config	2.0	LAB	TM-20 Ch 3 Sec 3-3
5	C2DAO Naming Conventions: Datasets, Pipelines, Object Types	0.5	DIS	Standards Ch 1-2
6	Individual Practice: Second Project, Ingest Provided Dataset	1.5	LAB	TM-20 Ch 2-3

### Day 2 — Pipeline Builder: Clean and Transform

Block	Title	Hours	Method	Reference
7	Pipeline: Filter Step, Rename Step, CAST for Type Correction	2.0	LAB	TM-20 Ch 3 Sec 3-4
8	Pipeline: Calculated Columns — String Functions, Conditional Logic, COALESCE	1.25	LAB	TM-20 Ch 3 Sec 3-5
9	Pipeline: Date and Time Functions — DATEDIFF, DATE_TRUNC, CURRENT_DATE	2.0	LAB	TM-20 Ch 3 Sec 3-6
10	End-to-End Pipeline Practice: Raw Input to Typed Filtered Output	1.75	LAB	TM-20 Ch 3

### Day 3 — Pipeline Builder: Joins; Ontology Manager

Block	Title	Hours	Method	Reference
11	Pipeline: Join Step — Inner/Left Join, Key Selection, Deduplication	2.0	LAB	TM-20 Ch 3 Sec 3-7
12	Pipeline: Group-By Aggregation, Union Step, Output Mode Configuration	1.25	LAB	TM-20 Ch 3 Sec 3-8
13	Ontology Manager: Create Object Type — Properties, PK, Display Name	2.0	LAB	TM-20 Ch 4 Sec 4-1
14	Ontology Manager: Create Link Type — Cardinality, Directionality	0.75	LAB	TM-20 Ch 4 Sec 4-2
15	Pipeline: Ontology Write Step — Property Mapping, Run and Verify	1.0	LAB	TM-20 Ch 4 Sec 4-3

## Day 4 — Actions and Workshop Applications

Block	Title	Hours	Method	Reference
16	Actions: Create Basic Action — Parameter, Write Rule, Access Restriction	1.5	LAB	TM-20 Ch 4 Sec 4-4
17	Workshop Orientation: Canvas, Widget Library, Object Type Binding, Table Widget	1.75	LAB	TM-20 Ch 5 Sec 5-1
18	Workshop: Filter Widget, Metric Widget, Bar Chart Widget	2.0	LAB	TM-20 Ch 5 Sec 5-2
19	Workshop: Connecting Action Button — Trigger, Confirmation, Post-Action Refresh	1.25	LAB	TM-20 Ch 5 Sec 5-3
20	Access Control Model: Viewer vs. Editor Roles	0.5	DIS	TM-20 Ch 6 Sec 6-1

## Day 5 — Publishing, Governance, and Practical Exercise

Block	Title	Hours	Method	Reference
21	Workshop Publishing: Visibility, Viewer Access, Confirm Viewer Cannot Edit	1.0	LAB	TM-20 Ch 6 Sec 6-2
22	Branching: Create Branch, Make Change on Branch, Verify Branch-Only	1.0	LAB	TM-20 Ch 7 Sec 7-1
23	Promotion Workflow: Write Description, Submit to Steward, Respond to Rejection	0.75	LAB	TM-20 Ch 7 Sec 7-2
24	Full-Stack Review: Trace Product from Raw File to Access Control	1.0	REV	SL 2 All Chapters
25	Practical Exercise (Evaluated)	4.0	EVAL	TM-20 Practical Exercise Guide
	<b>SL 2 Total</b>	<b>40.0</b>		

### 3-3. SL 3: Advanced Builder

**Course length:** 5 days (40 hours) | **Evaluation:** Practical exercise (6 tasks, including reviewed design document; Go/No-Go)

#### Day 1 — Advanced Workshop

Block	Title	Hours	Method	Reference
1	Multi-Page Workshop: Navigation, Page Parameters, URL Deep Links	2.0	LAB	TM-30 Ch 2 Sec 2-1
2	Conditional Logic: Show/Hide Panels, Conditional Formatting, Dynamic Visibility	1.25	LAB	TM-30 Ch 2 Sec 2-2
3	Variable Passing: Object Selections Between Pages, Filtered Detail Views	2.0	LAB	TM-30 Ch 2 Sec 2-3
4	Design Exercise: 3-Page Operations Dashboard (Portfolio → Unit → Trend); Instructor Critique	1.75	WKS	TM-30 Ch 2

## Day 2 — Advanced Pipeline Builder

Block	Title	Hours	Method	Reference
5	Multi-Source Joins: Inner/Left/Outer, Fan-Out Handling, Post-Join Deduplication	2.0	LAB	TM-30 Ch 3 Sec 3-1
6	Union Transforms: Compatible Schemas, Handling Mismatches	1.25	LAB	TM-30 Ch 3 Sec 3-2
7	Group-By Aggregations: Count/Sum/Min/Max, Aggregate-Then-Join Patterns	2.0	LAB	TM-30 Ch 3 Sec 3-3
8	Output Mode: Overwrite vs. Append; Append for Snapshot Pipelines	1.25	LAB	TM-30 Ch 3 Sec 3-4
9	Scheduled Pipeline: Schedule Expression, Build Failure Email Alert	0.5	LAB	TM-30 Ch 3 Sec 3-5

## Day 3 — Ontology Design

Block	Title	Hours	Method	Reference
10	Ontology Design Methodology: Domain Analysis, Entity ID, Relationship Mapping, Action Design	1.0	LEC	TM-30 Ch 4 Sec 4-1
11	Individual Design Exercise: Mission Requirement → Documented Ontology Schema	1.75	LAB	TM-30 Ch 4 Sec 4-2
12	Design Critique: Peer Presentations, Class Review Against 6-Item Rubric	2.0	WKS	SL 3 Design Rubric
13	Build the Approved Design: Create Ontology, Connect Pipeline via Write Step	2.25	LAB	TM-30 Ch 4 Sec 4-3

## Day 4 — Analytics Tools and AIP Logic

Block	Title	Hours	Method	Reference
14	Contour: Pivot Tables, Calculated Columns, Parameter Controls, Saved Views	2.0	LAB	TM-30 Ch 5
15	Quiver: Multi-Object Analysis, Linked Views, Cross-Filter Propagation, Drilling	1.25	LAB	TM-30 Ch 6
16	AIP Logic Configuration: Triggers, Inputs, Outputs; Human Review Queue Design	1.5	LAB	TM-30 Ch 7 Sec 7-1
17	Data Lineage: Reading Lineage Graphs, Identifying Sources and Consumers	1.25	LAB	TM-30 Ch 8
18	C2DAO Production Standards: Quality Gates for Production-Ready Data Products	1.0	DIS	Standards Ch 3

### Day 5 — Governance and Practical Exercise

Block	Title	Hours	Method	Reference
19	Full C2DAO Promotion Workflow: Branch → Change → Submit → Respond → Approval	1.0	LAB	TM-30 Ch 9
20	Full-Stack Review: Raw Source → Pipeline → Ontology → Workshop → Governance	1.0	REV	SL 3 All Chapters
21	Practical Exercise Scenario Brief and Design Planning Time	1.25	BRF	—
22	Practical Exercise (Evaluated)	4.0	EVAL	TM-30 Practical Exercise Guide
	<b>SL 3 Total</b>	<b>40.0</b>		

### 3-4. SL 4G: ORSA Specialist

**Course length:** 5 days (40 hours) | **Evaluation:** Practical exercise (6 tasks); evaluated commander brief; Go/No-Go

Day	Block	Title	Hours	Method	Reference
1	1	ORSA Role on MSS; Analytical Product Standards; Foundry Data Model	1.0	BRF	TM-40G Ch 1-2
1	2	Code Workspace Setup: Package Install, GPU/CPU Allocation, Reproducibility	2.0	LAB	TM-40G Ch 2 Sec 2-3

Day	Block	Title	Hours	Method	Reference
1	3	Foundry Dataset Connectivity: Reading via Spark/Pandas, Schema Inspection	0.75	LAB	TM-40G Ch 2 Sec 2-4
1	4	Writing Outputs to Foundry: Transaction Pattern for Results to Curated Datasets	2.0	LAB	TM-40G Ch 2 Sec 2-5
1	5	Data Profiling: Null Distributions, Outlier Detection, Feature Distributions	1.75	LAB	TM-40G Ch 3 Sec 3-1
2	6	Regression: Linear Regression for Readiness Forecasting, Validation Statistics	2.0	LAB	TM-40G Ch 3 Sec 3-2
2	7	Classification Models: Logistic Regression, Decision Trees, Cross-Validation	1.25	LAB	TM-40G Ch 3 Sec 3-3
2	8	Model Validation Standards: Residual Analysis, Documenting Assumptions	2.0	LAB	TM-40G Ch 3 Sec 3-4
2	9	Practice Build: Regression → Foundry Output → Quiver Visualization	1.75	LAB	TM-40G Ch 3
3	10	Time Series: Stationarity, ACF/PACF, ARIMA Model Identification	2.0	LAB	TM-40G Ch 4 Sec 4-1
3	11	ARIMA/SARIMA Build: Readiness Trend with 90% Confidence Bounds	1.25	LAB	TM-40G Ch 4 Sec 4-2
3	12	Monte Carlo: COA Comparison, Distribution Selection, 1,000-Trial Simulation	2.0	LAB	TM-40G Ch 5
3	13	Sensitivity Analysis; Logistics Stockage Risk Modeling	1.75	LAB	TM-40G Ch 5 Sec 5-3
4	14	Linear Programming: Resource Allocation Formulation, scipy/lpSolve	2.0	LAB	TM-40G Ch 6
4	15	Scheduling Optimization: Maintenance vs. Operational Commitments	1.25	LAB	TM-40G Ch 6 Sec 6-3
4	16	Wargame/Exercise Data Architecture: Collection Templates, Analysis Pipeline	2.0	LAB	TM-40G Ch 7
4	17	Quiver/Contour for ORSA: Forecast Dashboard, COA Comparison, Uncertainty Bounds	1.75	LAB	TM-40G Ch 8
5	18	Communicating Uncertainty: Confidence Intervals, Briefing Posture, Translation	1.0	LEC	TM-40G Ch 9

Day	Block	Title	Hours	Method	Reference
5	19	Common ORSA Brief Failures: Point Estimates Without Bounds, Methods-Paper Language	1.0	DIS	TM-40G Ch 9
5	20	Practical Exercise Scenario Brief and ORSA Product Standards Review	1.5	BRF	—
5	21	Practical Exercise (Evaluated): Regression + Time Series + Commander Brief	4.0	EVAL	TM-40G Practical Exercise Guide
		<b>SL 4G Total</b>	<b>40.0</b>		

### 3-5. SL 4H: AI Engineer

**Course length:** 5 days (40 hours)

#### NOTE

Day 1 Block 1 (AI Safety Seminar) is mandatory — no exceptions, no rescheduling.

**Evaluation:** Practical exercise (7 tasks); AIP Authorization Checklist review; Go/No-Go

Day	Block	Title	Hours	Method	Reference
1	1	AI Safety: Human-in-the-Loop, OPSEC, Prohibited Use Cases, Army CIO Policy	2.0	SEM	TM-40H Ch 6; Appendix B
1	2	AIP Platform Architecture: Logic, Agent Studio, Code Workspaces, LLM Endpoints	1.75	LEC	TM-40H Ch 2
1	3	AIP Logic: First Workflow — Prompt, Input, Output Binding, Test Run	2.0	LAB	TM-40H Ch 3 Sec 3-1
1	4	AIP Logic: Conditional Chains, Error Handling, Structured JSON Output	1.75	LAB	TM-40H Ch 3 Sec 3-2
2	5	AIP Logic: Multi-Step Chains, Looping, Parallel Branches, Action Integration	2.0	LAB	TM-40H Ch 3 Sec 3-3
2	6	Python Transforms for AIP: Extracting Ontology Data, Context Formatting for Military Terminology	1.25	LAB	TM-40H Ch 4 Sec 4-1
2	7	Context Management: Chunking Strategies, Context Window Limits, Large Dataset Handling	2.0	LAB	TM-40H Ch 4 Sec 4-2

Day	Block	Title	Hours	Method	Reference
2	8	Ontology Integration: Write AIP Outputs via Actions; Human Review Queue for Uncertain Outputs	1.75	LAB	TM-40H Ch 4 Sec 4-3
3	9	RAG Architecture: Semantic Search, Retrieval from Ontology Objects, Context Construction	2.0	LAB	TM-40H Ch 5 Sec 5-1
3	10	RAG Pipeline Build: Retrieval → Context → Prompt → JSON Output → Ontology Write with Review Gate	1.25	LAB	TM-40H Ch 5 Sec 5-2
3	11	RAG Quality: Retrieval Relevance, Grounding Failures, Hallucination Detection	2.0	LAB	TM-40H Ch 5 Sec 5-3
3	12	End-to-End Workflow Practice: AIP Logic + RAG + Human Review + Ontology Write	1.75	LAB	TM-40H Ch 3-5
4	13	Agent Studio: Architecture, Tool Definition, Tool-Use Authorization, Memory Scope	2.75	LAB	TM-40H Ch 7
4	14	Agent Studio: Testing Tool Use; Confirming Authorization Controls	1.0	LAB	TM-40H Ch 7 Sec 7-4
4	15	Testing AI Outputs: Evaluation Frameworks, Red-Teaming, Adversarial Prompt Testing	2.0	LAB	TM-40H Ch 6 Sec 6-5
4	16	AI Output Validation Framework; AIP Authorization Checklist Completion	1.75	LAB	TM-40H Appendix A, C
5	17	Production Deployment: Scheduling, Monitoring, Failure Alerting, Rollback	1.0	LAB	TM-40H Ch 8
5	18	Practical Exercise Scenario Brief and Workflow Design Time	1.0	BRF	—
5	19	Authorization Checklist Guidance; Evaluation Criteria Review	1.5	BRF	TM-40H Appendix A
5	20	Practical Exercise (Evaluated): Author → Test → Authorize → Deploy AIP Workflow	4.0	EVAL	TM-40H Practical Exercise Guide
		<b>SL 4H Total</b>	<b>40.0</b>		

### 3-6. SL 4M: ML Engineer

**Course length:** 5 days (40 hours) | **Evaluation:** Practical exercise (7 tasks); model card review; Go/No-Go

Day	Block	Title	Hours	Method	Reference
1	1	MLE Role on MSS; Model Governance Overview; Responsible AI for Operational Models	1.0	BRF	TM-40M Ch 1, 9
1	2	Code Workspace Setup: GPU Allocation, Package Management, Foundry Connectivity	2.0	LAB	TM-40M Ch 2
1	3	Foundry Write Pattern for ML: Transaction-Based Output Writes from Code Workspace	0.75	LAB	TM-40M Ch 2 Sec 2-4
1	4	Feature Engineering Principles: Null Handling, Encoding, Scaling, Leakage Detection	2.0	LEC	TM-40M Ch 3 Sec 3-1
1	5	Feature Engineering Practice: Apply Standards to Provided Dataset; Document Features	1.75	LAB	TM-40M Ch 3 Sec 3-2
2	6	Feature Pipeline Build: Raw → Feature Matrix (Null, Encoding, Scaling)	2.75	LAB	TM-40M Ch 3 Sec 3-3
2	7	Feature Pipeline: Leakage Audit — Verify No Feature Derived from Label	0.75	LAB	TM-40M Ch 3 Sec 3-4
2	8	Feature Pipeline: Output to Foundry Curated Dataset via Write Transaction	2.0	LAB	TM-40M Ch 3 Sec 3-5
2	9	Experiment Setup: Train/Test Split, Cross-Validation, Baseline Model	1.75	LAB	TM-40M Ch 4 Sec 4-1
3	10	Model Training: scikit-learn/PyTorch in Code Workspace; Cross-Validation; Hyperparameter Tuning	2.75	LAB	TM-40M Ch 4 Sec 4-2
3	11	Model Evaluation: Accuracy/Precision/Recall/ROC-AUC; Acceptance Thresholds; Calibration	1.0	LAB	TM-40M Ch 5
3	12	Model Comparison Exercise: Train Two Models, Select Winner, Document Rationale	2.0	LAB	TM-40M Ch 5 Sec 5-3
3	13	Experiment Tracking: Log Parameters/Metrics to Foundry Model Registry; Versioning	1.75	LAB	TM-40M Ch 6
4	14	Model Deployment: Serving Endpoint, Inference API, Latency/Throughput Verification	2.0	LAB	TM-40M Ch 7 Sec 7-1
4	15	Connecting Deployed Model to Ontology: Actions That Invoke Inference, Write Predictions	1.25	LAB	TM-40M Ch 7 Sec 7-2

Day	Block	Title	Hours	Method	Reference
4	16	Monitoring Pipeline: Data Drift Detection, Threshold Definition, Alert Routing	2.0	LAB	TM-40M Ch 7 Sec 7-3
4	17	Operational Use Case Patterns: Readiness Prediction, Logistics Forecasting, Anomaly Detection	1.75	LAB	TM-40M Ch 8
5	18	Model Governance: Model Card Completion — Assumptions, Limitations, Responsible AI Declaration	1.0	LAB	TM-40M Ch 9
5	19	Deployment Approval and C2DAO Governance for Deployed Models	1.0	BRF	Standards Ch 4
5	20	Practical Exercise Scenario Brief; Planning Time	1.5	BRF	—
5	21	Practical Exercise (Evaluated): Feature Pipeline → Train → Evaluate → Deploy → Monitor → Governance	4.0	EVAL	TM-40M Practical Exercise Guide
		<b>SL 4M Total</b>	<b>40.0</b>		

### 3-7. SL 4J: Program Manager

**Course length:** 4 days (32 hours) | **Evaluation:** Practical exercise (7 tasks); PM Dashboard Standards Checklist review; Go/No-Go

Day	Block	Title	Hours	Method	Reference
1	1	The Technical PM Role on MSS; How SL 4J Connects Operational Requirements to Technical Execution	0.5	BRF	TM-40J Ch 1
1	2	Agile for Data Projects: Scrum Framework, Sprint Cadence, Backlog Management; Applied Exercise: Story Sizing	1.5	LAB	TM-40J Ch 2
1	3	User Stories and Acceptance Criteria: Format, Quality Standards, Definition of Ready; Applied Exercise: Rewrite Requirements	1.75	LAB	TM-40J Ch 2
1	4	Kanban for Operational Support; Sprint Ceremonies — Military Data Team Execution Standards; Sprint Planning Exercise	2.0	LAB	TM-40J Ch 2

Day	Block	Title	Hours	Method	Reference
1	5	User Story Quality Workshop: Peer Review Against Definition of Ready; Common Failure Patterns	1.75	WKS	TM-40J Ch 2
2	6	ML/AI Project Lifecycle: Six Phases from Problem Definition Through Sustainment; Gate Criteria; Cross-Track Handoffs	1.5	LEC	TM-40J Ch 3
2	7	Requirements Elicitation from Commanders and Staff: Structured Intake, Translation Problem; Interview Simulation	1.75	LAB	TM-40J Ch 4
2	8	Requirements Document Drill: Problem Statement, Success Criteria, Constraints, Definition of Done; Peer Review	1.5	LAB	TM-40J Ch 4
2	9	Stakeholder Expectations: Delivery Timelines, Scope Tradeoffs, Cross-Track Coordination; PM vs. Technical Authority	2.25	LEC	TM-40J Ch 4
3	10	Project Tracking System Architecture: Project Tracker Ontology Design; Sprint Board Specification; PM Requirements Spec	2.0	LAB	TM-40J Ch 5
3	11	Commander-Facing Project Status Dashboard: Health Roll-Up, Milestone Status, Blocking Issues; Automated Status Alerts	1.75	LAB	TM-40J Ch 5
3	12	Risk Management for Data Projects: Risk Register, Dependency Management, Cross-Track Blockers	2.0	LAB	TM-40J Ch 6
3	13	Dependency Mapping Exercise: Identify Cross-Track Dependencies for Practical Exercise Scenario; Instructor Review	2.0	LAB	TM-40J Ch 6
4	14	Delivery Planning: Scope/Timeline/Quality Tradeoffs, Release Planning, Definition of Done, Production Readiness Review	1.0	LEC	TM-40J Ch 7
4	15	Change Management: User Adoption, Resistance Management, Rollout Sequencing, Platform Governance	0.75	LEC	TM-40J Ch 8
4	16	Practical Exercise Scenario Brief; Environment Check	0.75	BRF	—
4	17	Practical Exercise — Phase 1 (Tasks 1–4): Requirements Document, User Stories, Sprint	2.0	EVAL	TM-40J Practical Exercise Guide

Day	Block	Title	Hours	Method	Reference
		Board Spec, Dashboard Spec			
4	18	Practical Exercise — Phase 2 (Tasks 5–7): Dependency/Risk Register, Production Readiness Brief, Change Management Summary	4.0	EVAL	TM-40J Practical Exercise Guide
		<b>SL 4J Total</b>	<b>32.0</b>		

### 3-8. SL 4K: Knowledge Manager

**Course length:** 4 days (32 hours) | **Evaluation:** Practical exercise (6 tasks); PCS package instructor review (Day 4); Go/No-Go

Day	Block	Title	Hours	Method	Reference
1	1	KM Role on MSS; Knowledge Architecture Methodology; Why KM Systems Fail and What Makes Them Survive Personnel Turbulence	1.0	BRF	TM-40K Ch 1
1	2	Ontology: Knowledge Object Types — Document, Lesson, AAR, SOP, ExpertiseProfile; Link Types; Design on Paper Before Building	2.0	LAB	TM-40K Ch 2
1	3	Workshop: AAR Submission Form — Required-Field Validation, Submission Confirmation, Routing to AAR Object Type	0.75	LAB	TM-40K Ch 3 Sec 3-2
1	4	Lessons Learned Pipeline: Intake, Deduplication, Tagging Taxonomy Design, Distribution Routing by Unit/Classification/Echelon	2.0	LAB	TM-40K Ch 4
1	5	AIP Logic: Document Summarization; Automatic Theme Extraction; Human Review Queue — All AIP Outputs Begin as Draft	1.75	LAB	TM-40K Ch 5 Sec 5-1
2	6	Workshop: Knowledge Browser — Search by Keyword, Filter by Tag/Unit/Date, Drill-Down to Lesson Detail	2.0	LAB	TM-40K Ch 5 Sec 5-4
2	7	SOP/Doctrine Version Control: Lifecycle Management, Version Tagging, SOP Review Notification Workflow	1.25	LAB	TM-40K Ch 7 Sec 7-6

Day	Block	Title	Hours	Method	Reference
2	8	AIP Prompt Iteration Lab (Extended): Test Against 5 Documents, Score Extraction Quality, Revise, Retest Minimum 3 Cycles	2.25	LAB	TM-40K Ch 5 Sec 5-3
2	9	Prompt Comparison Debrief: Before/After Sharing, Structural Changes, Common Prompt Failure Patterns	1.5	WKS	TM-40K Ch 5 Sec 5-3
3	10	Personnel Expertise Mapping: ExpertiseProfile Object Type, Skills Taxonomy, SME Directory; Privacy Act Authorities	2.0	LAB	TM-40K Ch 8 Sec 8-1
3	11	PCS Knowledge Transfer Methodology: Key Person Dependency Analysis, Transfer Package Design, Foundry Project Handoff	1.0	LAB	TM-40K Ch 9
3	12	PCS Package Requirements Brief: Chapter 9 Completeness Criteria; What a Passing Package Contains	0.25	BRF	TM-40K Ch 9
3	13	PCS Package Draft Lab (Full Afternoon): Each Trainee Produces Complete Draft; Submitted by 1700 for Instructor Review	4.0	LAB	TM-40K Ch 9
4	14	PCS Package Instructor Review: Written Feedback; Individual Conferral; Revision Against Chapter 9 Criteria	2.25	WKS	TM-40K Ch 9
4	15	Practical Exercise Scenario Brief; Go Criteria Review for AIP Gate and PCS Package	0.75	BRF	—
4	16	Practical Exercise (Evaluated)	4.0	EVAL	TM-40K Practical Exercise Guide
		<b>SL 4K Total</b>	<b>32.0</b>		

### 3-9. SL 4L: Software Engineer

**Course length:** 5 days (40 hours) | **Evaluation:** Practical exercise (6 tasks); validator test suite (8 test cases); deployment checklist review; Go/No-Go

Day	Block	Title	Hours	Method	Reference
1	1	SWE Role on MSS; 5-Layer Data Stack; OSDK Architecture vs. Standard REST	1.0	LEC	TM-40L Ch 1

Day	Block	Title	Hours	Method	Reference
1	2	OSDK Setup: Auth Architecture, Client Init, Token Handling, First Object Query	2.0	LAB	TM-40L Ch 2 Sec 2-1
1	3	OSDK: Filtering and Sorting — Query Predicates, Sort Expressions, Field Selection	0.75	LAB	TM-40L Ch 2 Sec 2-2
1	4	OSDK: Pagination — ResourceIterator, Iterating All Pages, Multi-Page Result Sets	2.0	LAB	TM-40L Ch 2 Sec 2-3
1	5	OSDK: Link Traversal — Querying Related Objects Across Link Types	1.75	LAB	TM-40L Ch 2 Sec 2-4
2	6	OSDK: Action Execution — Async Response, Task ID Polling for Completion	2.0	LAB	TM-40L Ch 3 Sec 3-1
2	7	OSDK: Error Handling and Retry — Action Failures, Timeout, Structured Error Response	1.25	LAB	TM-40L Ch 3 Sec 3-2
2	8	OSDK: Object Subscriptions — Real-Time Change Notifications via WebSocket	2.0	LAB	TM-40L Ch 3 Sec 3-3
2	9	OSDK: Bulk Operations — Batch Queries, Bulk Action Submissions; Avoid Per-Object Loops	1.75	LAB	TM-40L Ch 3 Sec 3-4
3	10	Platform SDK: Dataset Read Operations, Write Transactions, File Resources, Branch Management	2.0	LAB	TM-40L Ch 4 Sec 4-1
3	11	Platform SDK Exercise: Build Dataset Integration Using Read/Write Transaction Pattern	1.25	LAB	TM-40L Ch 4 Sec 4-2
3	12	TypeScript FOO: Repository Structure, Computed Property Implementation, Function Registration	2.0	LAB	TM-40L Ch 5 Sec 5-1
3	13	FOO: Bulk Query Patterns — Avoiding N+1 Queries; Test with 200+ Object Set	1.75	LAB	TM-40L Ch 5 Sec 5-2
4	14	TypeScript Action Validators: Multi-Condition, Cross-Field Logic, Error Message Standards	2.0	LAB	TM-40L Ch 6 Sec 6-1
4	15	Validator Testing: Test Suite — 4 Valid, 4 Invalid; Each Paired with Expected Error Message	1.25	LAB	TM-40L Ch 6 Sec 6-2
4	16	Slate Applications: Structure, Foundry API Integration, Widget Binding, Initial Data Load	2.0	LAB	TM-40L Ch 7 Sec 7-1

Day	Block	Title	Hours	Method	Reference
4	17	Slate: State Management on Action Completion; Error State Display for Failed Actions	1.75	LAB	TM-40L Ch 7 Sec 7-2
5	18	CI/CD: Repository Discipline, PR Workflow, Automated Testing, C2DAO Deployment Checklist	1.0	LEC	TM-40L Ch 8
5	19	Security and Compliance: Token Handling, Input Sanitization, OPSEC for App Code	1.0	LEC	TM-40L Ch 9
5	20	Practical Exercise Scenario Brief; Planning Time	1.5	BRF	—
5	21	Practical Exercise (Evaluated): OSDK → Validator → Slate UI → Deployment Checklist	4.0	EVAL	TM-40L Practical Exercise Guide
		<b>SL 4L Total</b>	<b>40.0</b>		

### 3-10. SL 4N: UI/UX Designer

**Course length:** 5 days (40 hours) | **Evaluation:** Practical exercise (6 tasks); design portfolio review; Go/No-Go

Day	Block	Title	Hours	Method	Reference
1	1	UI/UX Role on MSS; Design Principles for Operational Data Products; Workshop Design Patterns	1.0	BRF	TM-40N Ch 1-2
1	2	User Research Methods: Stakeholder Interviews, Task Analysis, Persona Development for Military Users	2.0	LEC	TM-40N Ch 2 Sec 2-1
1	3	Information Architecture: Organizing Complex Data for Command Audiences; Navigation Design	1.25	LAB	TM-40N Ch 2 Sec 2-2
1	4	Wireframing Fundamentals: Low-Fidelity Prototyping for Workshop Applications	2.0	LAB	TM-40N Ch 3 Sec 3-1
1	5	Design Critique: Peer Review of Wireframes Against Operational Requirements	1.25	WKS	TM-40N Ch 3
2	6	Accessibility Standards: WCAG Compliance for Government Applications; Color Contrast, Text Sizing	2.0	LEC	TM-40N Ch 4 Sec 4-1

Day	Block	Title	Hours	Method	Reference
2	7	Responsive Design: Multi-Device Layouts for Field and Garrison Use	1.25	LAB	TM-40N Ch 4 Sec 4-2
2	8	Color Theory and Typography for Data Visualization: RAG Standards, Status Encoding	2.0	LAB	TM-40N Ch 5
2	9	Dashboard Layout Patterns: Summary-Detail, Drill-Down, Comparison; Anti-Patterns to Avoid	2.25	LAB	TM-40N Ch 5 Sec 5-3
3	10	High-Fidelity Prototyping: Workshop Application Design with Real Data Binding	2.0	LAB	TM-40N Ch 6 Sec 6-1
3	11	Interactive Prototyping: Conditional Visibility, State Transitions, User Flow Design	1.25	LAB	TM-40N Ch 6 Sec 6-2
3	12	User Testing Methodology: Test Plan Design, Task Scenarios, Observation Protocols	2.0	LEC	TM-40N Ch 7 Sec 7-1
3	13	Usability Testing Lab: Conduct User Test with Peer; Document Findings; Prioritize Fixes	2.25	LAB	TM-40N Ch 7 Sec 7-2
4	14	Design System Creation: Component Library, Style Guide, Reusable Widget Templates	2.0	LAB	TM-40N Ch 8 Sec 8-1
4	15	Design System: Documenting Components for Developer Handoff; Naming Conventions	1.25	LAB	TM-40N Ch 8 Sec 8-2
4	16	Design-Development Collaboration: Specification Documents, Design Tokens, Handoff Workflow	2.0	LAB	TM-40N Ch 9
4	17	Design Review Process: Submitting Designs for C2DAO Standards Review; Iteration Workflow	1.75	DIS	TM-40N Ch 9 Sec 9-3
5	18	Design Portfolio Standards: What Constitutes a Complete Operational UI/UX Deliverable	1.0	LEC	TM-40N Ch 10
5	19	Practical Exercise Scenario Brief and Design Planning Time	1.5	BRF	—
5	20	Practical Exercise (Evaluated): User Research → Wireframe → Prototype → Test → Design System Artifact	4.0	EVAL	TM-40N Practical Exercise Guide
		<b>SL 4N Total</b>	<b>40.0</b>		

### 3-11. SL 40: Platform Engineer

**Course length:** 5 days (40 hours) | **Evaluation:** Practical exercise (6 tasks); deployment checklist review; Go/No-Go

Day	Block	Title	Hours	Method	Reference
1	1	Platform Engineering Role on MSS; Infrastructure Architecture Overview; Foundry Deployment Model	1.0	BRF	TM-400 Ch 1-2
1	2	Kubernetes Fundamentals: Cluster Architecture, Namespaces, Resource Quotas, Pod Lifecycle	2.0	LAB	TM-400 Ch 2 Sec 2-1
1	3	Container Management: Image Registry, Build Pipeline, Vulnerability Scanning Basics	1.25	LAB	TM-400 Ch 2 Sec 2-2
1	4	Foundry Infrastructure: Platform Components, Service Dependencies, Health Check Architecture	2.0	LAB	TM-400 Ch 3 Sec 3-1
1	5	Infrastructure-as-Code: Configuration Management Patterns for Repeatable Deployments	1.25	LAB	TM-400 Ch 3 Sec 3-2
2	6	Deployment Strategies: Rolling Updates, Blue- Green, Canary; Rollback Procedures	2.0	LAB	TM-400 Ch 4 Sec 4-1
2	7	Deployment Lab: Execute a Rolling Update; Verify Zero-Downtime; Trigger a Rollback	1.25	LAB	TM-400 Ch 4 Sec 4-2
2	8	Service Mesh and Networking: Ingress, Load Balancing, Service Discovery, TLS Configuration	2.0	LAB	TM-400 Ch 5
2	9	Storage Management: Persistent Volumes, Storage Classes, Backup and Recovery Procedures	2.25	LAB	TM-400 Ch 5 Sec 5-3
3	10	Monitoring Architecture: Metrics Collection, Log Aggregation, Distributed Tracing Setup	2.0	LAB	TM-400 Ch 6 Sec 6-1
3	11	Alerting Configuration: Threshold Alerts, Anomaly Detection, Escalation Routes, PagerDuty Integration	1.25	LAB	TM-400 Ch 6 Sec 6-2
3	12	Observability Dashboard Build: Health Status, Resource Utilization, Error Rates, SLI/SLO Tracking	2.0	LAB	TM-400 Ch 6 Sec 6-3

Day	Block	Title	Hours	Method	Reference
3	13	Incident Response: Runbook Development, Escalation Procedures, Post-Incident Review Template	2.25	LAB	TM-400 Ch 7
4	14	Security Hardening: Network Policies, RBAC Configuration, Secrets Management, Audit Logging	2.0	LAB	TM-400 Ch 8 Sec 8-1
4	15	Access Control: Service Accounts, Pod Security Standards, Least-Privilege Enforcement	1.25	LAB	TM-400 Ch 8 Sec 8-2
4	16	CI/CD Pipeline Design: GitOps Workflow, Automated Testing Gates, Promotion Environments	2.0	LAB	TM-400 Ch 9 Sec 9-1
4	17	CI/CD Lab: Build a Pipeline with Test, Scan, and Deploy Stages; Verify Gate Enforcement	1.75	LAB	TM-400 Ch 9 Sec 9-2
5	18	C2DAO Infrastructure Standards: Change Management, Deployment Approval, Documentation Requirements	1.0	LEC	TM-400 Ch 10
5	19	Practical Exercise Scenario Brief and Infrastructure Planning Time	1.5	BRF	—
5	20	Practical Exercise (Evaluated): Deploy → Monitor → Alert → Secure → CI/CD Pipeline → Deployment Checklist	4.0	EVAL	TM-400 Practical Exercise Guide
		<b>SL 40 Total</b>	<b>40.0</b>		

## CHAPTER 4 — TRAINING RESOURCES

### 4-1. Instructor Requirements

Course	Minimum Instructor Qualification	T:I Ratio
SL 1	SL 2 certified; 90 days active MSS use	10:1
SL 2	SL 3 certified; 6+ months Foundry build experience; able to troubleshoot all SL 2 labs	8:1

Course	Minimum Instructor Qualification	T:I Ratio
SL 3	SL 4 (any track) or C2DAO SME designation; able to conduct design critiques	6:1
SL 4A (Intel WFF)	SL 4A certified; G2/S2 Intel functional background; SL 3 proficiency	8:1
SL 4B (Fires WFF)	SL 4B certified; Fires/FSCOORD functional background; SL 3 proficiency	8:1
SL 4C (M2 WFF)	SL 4C certified; G3/S3 movement and maneuver background; SL 3 proficiency	8:1
SL 4D (SUST WFF)	SL 4D certified; G4/S4 sustainment background; SL 3 proficiency	8:1
SL 4E (PROT WFF)	SL 4E certified; Protection functional background; SL 3 proficiency	8:1
SL 4F (MC WFF)	SL 4F certified; Mission Command/G6 background; SL 3 proficiency	8:1
SL 4G	FA49 or equivalent ORSA background; SL 4G certified or C2DAO SME designation	4:1
SL 4H	AIP Logic authoring experience; C2DAO AI SME designation; SL 4H certified	4:1
SL 4M	ML production experience; SL 4M certified; C2DAO MLE SME designation	4:1
SL 4J	Program management background; SL 3 certified; GFEBS/IMS proficiency	6:1
SL 4K	Knowledge management background; SL 3 certified; AIP Logic configuration proficiency	6:1
SL 4L	Software engineering background; OSDK/Platform SDK proficiency; SL 4L certified	4:1
SL 4N	UI/UX design background; Workshop design proficiency; SL 4N certified or C2DAO UX SME designation	4:1
SL 4O	Platform engineering background; Kubernetes/container proficiency; SL 4O certified or C2DAO infrastructure SME designation	4:1

## 4-2. Training Environment Requirements

Course	Access Level Required	Provisioning Lead Time
SL 1	MSS Viewer (standard)	5 duty days
SL 2	MSS Builder	5 duty days

Course	Access Level Required	Provisioning Lead Time
SL 3	MSS Editor + AIP Logic configuration	7 duty days
SL 4A–F (WFF)	MSS Builder	5 duty days
SL 4G	Code Workspace (CPU or GPU) + standard Editor	7–10 duty days
SL 4H	AIP Logic authoring + Agent Studio	7–10 duty days
SL 4M	GPU-enabled Code Workspace	10+ duty days
SL 4J	MSS Builder	5 duty days
SL 4K	MSS Builder + AIP Logic configuration	5–7 duty days
SL 4L	OSDK developer access + developer token	10+ duty days
SL 4N	Workshop design access (Editor + AIP Logic configuration)	7–10 duty days
SL 4O	Kubernetes cluster access + CI/CD pipeline access	10+ duty days

### 4-3. Training Aids and Materials

- Instructor presentation slides (per lesson plan)
- Training datasets (synthetic, stored in MSS Training Environment)
- Practical exercise scenario packages (printed + digital; prepared by instructor prior to course)
- TM reference materials (each trainee receives digital copy before Day 1)
- PM Dashboard Standards Checklist, ORSA Product Standards Checklist, C2DAO Deployment Checklist (printed)

## CHAPTER 5 — EVALUATION STANDARDS

### 5-1. Go/No-Go Standards

Go requires all three: 1. All critical tasks completed independently (no instructor assistance, no hints) 2. All hard No-Go items passed (see 5-2 below) 3. Minimum task threshold met (see course syllabus)

### 5-2. Hard No-Go Items (Automatic Failure)

Course	Hard No-Go Item
SL 1	Incorrect classification marking or export procedure

Course	Hard No-Go Item
SL 2	Viewer-role test account can trigger Action or modify data
SL 3	Fatally-flawed Ontology design not corrected before build; promotion submitted without description
SL 4G	Commander brief presents point estimate without uncertainty bounds
SL 4H	Any AIP workflow writes to production Objects without human checkpoint
SL 4M	Model calibration not performed; governance document missing required sections
SL 4J	Dashboard has no data-as-of timestamp
SL 4K	AIP workflow auto-publishes without human review gate
SL 4L	Hardcoded credential in application code; validator test suite not fully passing
SL 4N	Design delivered without documented accessibility compliance or user testing plan
SL 4O	Infrastructure deployed without monitoring or alerting configuration

### 5-3. No-Go Remediation

A trainee who receives No-Go must: 1. Receive documented counseling within 1 duty day (DA Form 4856 or equivalent) 2. Conduct remediation on failed tasks — minimum 4 hours for SL 1/20/40J/40K; minimum 8 hours for SL 3/40G/40H/40M/40L/40N/40O 3. Be re-evaluated within 10 duty days 4. A second No-Go requires C2DAO approval before a third evaluation

All remediation events are documented on the Individual Training Record.

### 5-4. Course Completion Documentation

Upon successful completion (Go): 1. Instructor updates the Unit Training Status Matrix (Appendix A of MTP) 2. Individual Training Record annotated with: course, date, evaluator name, Go/No-Go 3. For SL 3 and above: trainee's commander receives a completion notification

## APPENDIX A — COURSE HOURS SUMMARY MATRIX

Course	Lecture/Brief	Lab	Discussion/Review	Workshop/Seminar	Evaluation	Total
SL 1	1.5	5.5	—	—	1.0	8.0
SL 2	—	31.2 5	2.75	—	4.0	38.0*

Course	Lecture/Brief	Lab	Discussion/Review	Workshop/Seminar	Evaluation	Total
SL 3	1.0	26.0	1.0	4.75	4.0	36.75*
SL 4A–F (each)	1.0	15.0	1.0	—	3.0	20.0*
SL 4G	2.0	30.0	1.0	—	4.0	37.0*
SL 4H	3.75	28.2 5	—	2.0	4.0	38.0*
SL 4M	1.0	31.0	—	—	4.0	36.0*
SL 4J	0.5	17.7 5	0.5	—	4.0	22.75*
SL 4K	1.0	14.2 5	—	2.25	4.0	21.5*
SL 4L	2.0	30.0	—	—	4.0	36.0*
SL 4N	4.0	22.0	1.75	1.25	4.0	33.0*
SL 4O	2.5	30.0	—	—	4.0	36.5*

\*Remainder of scheduled hours are review periods and scenario briefs not separately categorized above.

#### NOTE

SL 4A–F are 3-day/24-hour courses requiring SL 3 as a prerequisite. The hours summary above reflects approximate method distribution; exact distribution varies by WFF track and is specified in the applicable WFF Syllabus. SL 5G–O course hour breakdowns are specified in the applicable advanced specialist Syllabi and are not reproduced here.

## APPENDIX B — AMENDMENT RECORD

Amendment	Date	Description	Approved By
Initial Publication	March 2026	Initial POI for MSS Training Program	C2DAO

USAREUR-AF Operational Data Team POI MSS-POI-001 | Version 1.0 | March 2026