

Template page 1

UNIT Title: Designing a 30-Day Running Program to Improve Army Combat Fitness 2-Mile Time

Designer: Liela Shadmani

Purpose: To enable U.S. Army Soldiers to design personalized and peer-based 30-day running programs using performance metrics, heart rate training zones, and training residuals in alignment with National Strength and Conditioning Association (NSCA) guidelines.

Seat-time: 2-hours

Context: This is a new, stand-alone instructor-led unit designed for Soldiers preparing for the Army Combat Fitness Test (ACFT). The goal is to decrease their 2-mile run time using structured training methodologies based on heart rate zones, pace and distance principles, and training residuals. The instruction is delivered in-person and includes guided lectures, individual and peer planning activities, and reflection. Facilitation strategies include instructor demonstrations, hands-on coaching, and peer feedback.

Target Audience: U.S. Army Soldiers preparing for the ACFT with a prior 2-mile time recorded in DTMS. Learners should have basic familiarity with heart rate monitors, running pace, and training intensity zones.

Expected UNIT outcomes:

- Learners will calculate their heart rate training zones using resting and max heart rate data with 100% accuracy.
- Learners will design a personalized 30-day running plan that demonstrates pacing, heart rate targeting, and training residual alignment with a goal of improving their 2-mile run time by at least 1 minute.
- Learners will identify two key insights and one implementation strategy for improving running performance.

Overview: This 2-hour instructor-led unit guides U.S. Army Soldiers in applying performance-based training design principles to improve 2-mile run times in preparation for the Army Combat Fitness Test (ACFT). Prior to attending the course, each learner will receive a 10-minute instructional video via email after course registration, which introduces heart rate training zones, NSCA training residuals, and pacing principles. After viewing the video, learners are required to create a personal 30-day running program as homework, which they will bring to class. This personal plan becomes the basis for the in-class partner activities. The live session begins with a 15-minute introduction and a 15-minute review of templates, pacing tools, and doctrinal references. In the 45-minute hands-on partner session, Soldiers will pair up to review and critique each other's homework running programs, providing peer feedback using a guided rubric. Next, learners engage in a 45-minute formal assessment: 10 minutes to gather relevant fitness and goal data from their partner, followed by 35 minutes to design a customized 30-day running program tailored to their partner's ACFT goals. This peer plan must demonstrate application of heart rate zone progression, pace targeting, and NSCA training residual guidelines. The session concludes with a 15-minute group debrief and written reflection. Learners will share lessons learned, training challenges, and strategies for implementation. Instructor feedback is provided throughout the workshop, and a performance rubric guides both peer and instructor evaluation of final outputs.

Template page 2

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Key UNIT content: The instruction covers essential concepts including calculating Heart Rate Training Zones using resting heart rate, maximum heart rate, and heart rate reserve. Learners apply NSCA Training Residuals to determine appropriate training frequency, particularly for endurance development. They analyze Pacing Progression Principles, ensuring weekly volume control, gradual pacing adjustments, and correct incorporation of recovery intervals. Throughout the session, learners practice structured peer feedback using a provided rubric, reinforcing their ability to critique training programs constructively. The unit concludes with individual reflection, prompting learners to self-assess their program design skills and identify practical applications for their unit's physical training programs.

Content learning assessments: Learners complete a pre-course homework assignment in which they submit an initial 30-Day Running Program draft after watching the assigned instructional video. During the live session, each learner engages in a peer feedback activity using the Peer Feedback Rubric to assess their partner's plan. The core assessment involves designing a new individualized 30-Day Running Plan for their assigned partner, applying the course concepts. The instructor evaluates this final design using a formal Instructor Assessment Rubric. At the conclusion of the session, each learner completes a written Reflection Worksheet to capture personal insights, learning outcomes, and future application strategies.

Resources required for UNIT: The unit requires several instructional resources. Learners complete a 10-minute pre-course instructional video introducing core concepts. During the session, the instructor uses a comprehensive Instructor Guide and Facilitator Presentation Slides to deliver key content. Learner handouts include a Heart Rate Zone Calculator worksheet, NSCA Training Residuals reference sheet, Peer Feedback Rubric, Instructor Assessment Rubric, a blank 30-Day Program Template for assessment design, and a Reflection Worksheet for post-session self-assessment. Additional classroom materials include pens, calculators, pacing charts, and whiteboard or flip charts for group debrief discussions.

Facilities required for UNIT: The unit is conducted in a face-to-face classroom environment arranged to support partner interaction and coaching. The classroom requires audio/visual capability for brief instructor-led presentations. The room must allow for open partner workspaces that encourage hands-on peer review and design activities. The learning environment should be clean, organized, and free from distractions to ensure maximum learner engagement during collaborative and reflective exercises.

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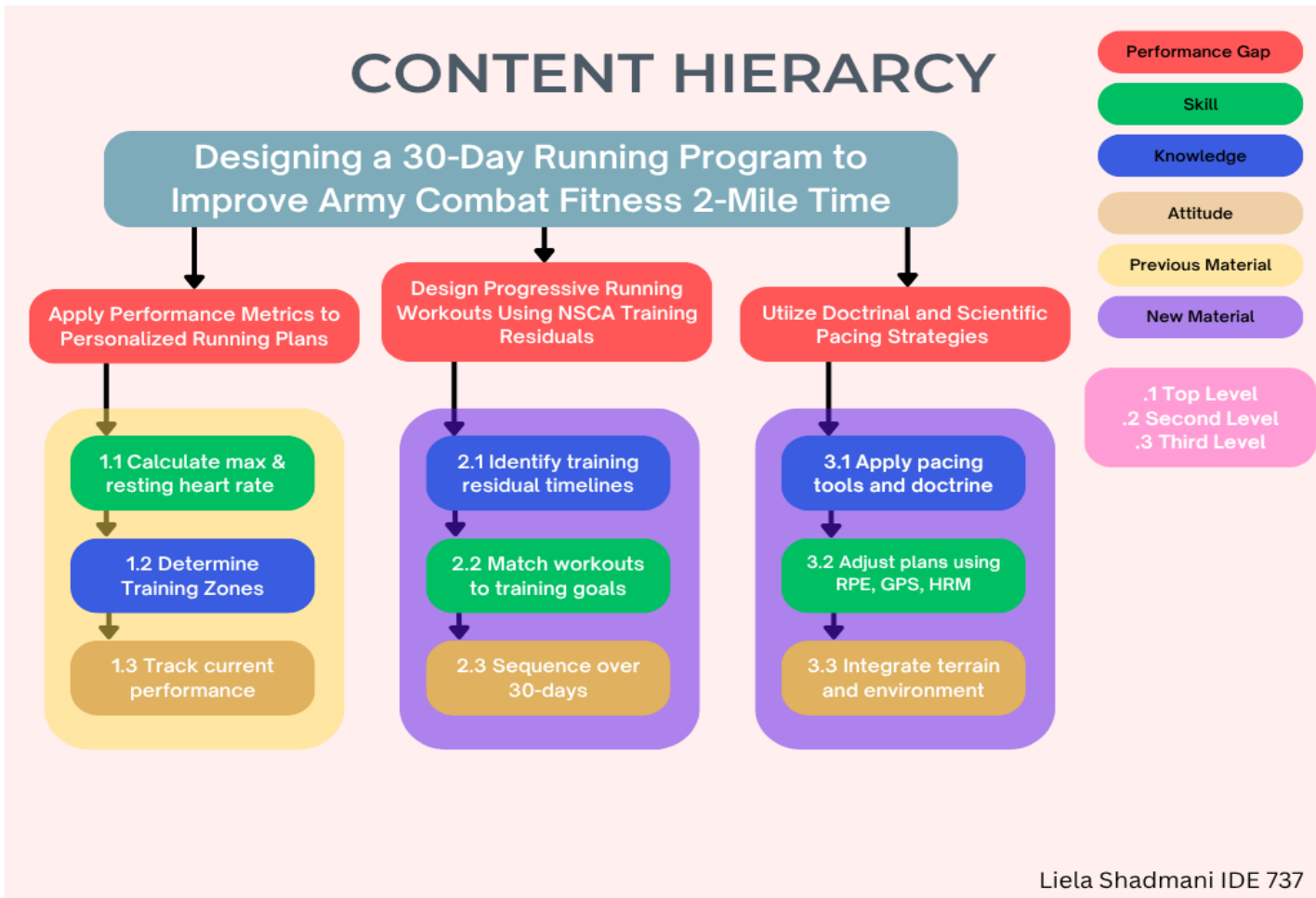
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Content Hierarchy: Shows overall performance and ALL key knowledge/skills required to be competent ... highlight parts of hierarchy that will be covered in UNIT. Include at least 3 main branches and 3 levels for each branch.



Template page 2

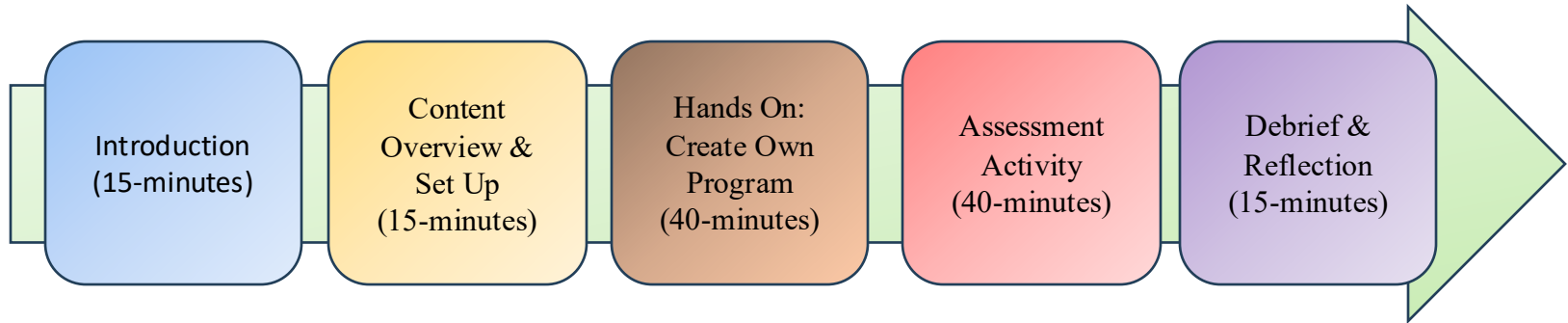
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UNIT Flow Chart of EVENTS :



Brief EVENT descriptions:

• Overview of course purpose & instructor • Instructor reviews learning objectives and outlines session flow • Recap of video homework	• Distribute training residuals and heart rate tools • Review NSCA training residuals and heart rate zones • Walk through example template	• Learners pair up and exchange self created 30-day program (homework) • Peer review using rubric for pacing, heart rate zones and recovery load (training residuals) • Instructor provides spot feedback and coaching	• 10 mins: interview partner on fitness history and goals • 30 mins: design peer specific 30-day program aligned with heart rate zones, pace targets, and NSCA recovery principles • Subject program for evaluation	• Instructor-facilitated wrap-up discussion • Prompts: “what did you learn” “what challenged you?” “how will you apply this?” • Learners complete a short-written reflection on performance and improvement plan
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Storyboard Template

UNIT Title: Designing a 30-Day Running Program to Improve Army Combat Fitness 2-Mile Time

EVENT Title: Introduction to Course & Session Setup

Estimated Time for EVENT: 15-Minutes

EVENT – Representative image

5-Zone Model of Intensity			
Zone	Type of Exercise	Heart Rate	RPE
1	Active Recovery	55-70% Max	<4
2	Aerobic Endurance	65-80% Max	4 to 6
3	Tempo	77-87% Max	6 to 7
4	Threshold	84-94% Max	7 to 8
5	VO2max	> 90% Max	> 8
6	High Intensity Sprints	Variable	> 8
7	Anaerobic Capacity	Variable	> 8
8	Strength Training	Variable	Variable
			

EVENT Description:

The instructor welcomes participants and introduces the purpose of the instructional unit. Learning outcomes are presented, emphasizing personal application of data-driven training to improve ACFT 2-mile run time. Instructor revisits expectations for pre-course homework (video and initial 30-day plan). The relevance of heart rate training zones, NSCA training residuals, and pacing are discussed in context of performance improvement. Partners are assigned for peer review activities. Learners receive all required materials.

EVENT Deliverables: (what is produced during event)

- Learners paired for peer review
- Distribution of rubrics and handouts
- Clear understanding of course flow and expectations

EVENT-required resources: (for facilitator & learners)

- Instructor slides
- Rubrics, Calculators, Residual Guidelines handouts
- Seating chart for partner assignments

Clarifying Notes on EVENT:

Learner engagement should be activated from the very beginning to build buy-in and motivation for the rest of the session. The introduction sets the stage for the peer-based instructional design, clarifies expectations, and prepares participants for collaboration and application. The instructor should verify that learners understand their role as both contributors and evaluators during peer review activities.

EVENT primary and sub-learning objectives:

- State the purpose of heart rate zones and training residuals in improving 2-mile performance.
- Describe how peer critique will support improved training design.

EVENT primary content points: (reviewed & assessed)

- Unit purpose and overview
- Heart rate training zones overview
- Recap of pre-course video content

Storyboard Template

UNIT Title: Designing a 30-Day Running Program to Improve Army Combat Fitness 2-Mile Time

EVENT Title: Content Review and Preparation for Activities

Estimated Time for EVENT: 15-Minutes

EVENT – Representative image



EVENT Description:

The instructor reviews heart rate zone calculations, NSCA training residuals, pacing strategies, and program progression. Using sample calculations, instructor models correct application to running program design. Learners are briefed on peer review expectations.

EVENT Deliverables: (what is produced during event)

- Reinforced understanding of HR calculations and pacing progression
- Learners ready for peer review process

EVENT-required resources: (for facilitator & learners)

- Whiteboard or slides for demonstrations
- Training Residuals Guide and Peer Feedback Rubric

Clarifying Notes on EVENT:

This portion reinforces key concepts needed for accurate peer evaluation. Modeling concrete examples helps learners connect theory to practice. The instructor should check for comprehension and clarify any misunderstandings before learners move into the peer review phase.

EVENT primary and sub-learning objectives:

- Accurately apply heart rate zone formulas.
- Explain training residual impact on plan frequency.
- Prepare to give objective peer feedback.

EVENT primary content points: (reviewed & assessed)

HR zone formulas and calculations
NSCA endurance residual timelines
Safe progression models

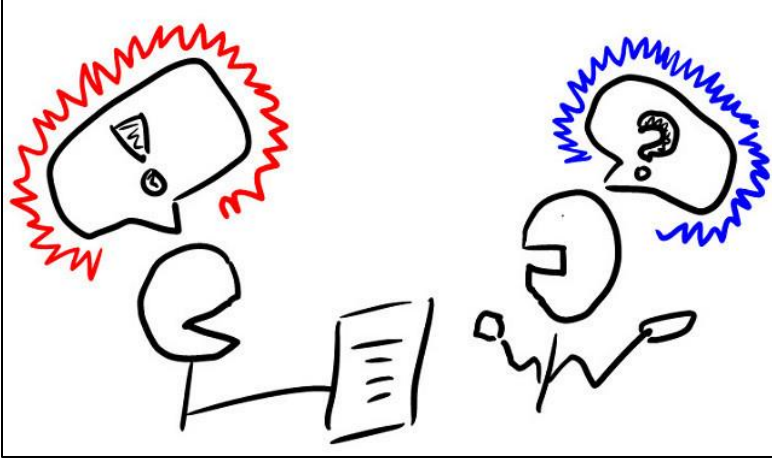
Storyboard Template

UNIT Title: Designing a 30-Day Running Program to Improve Army Combat Fitness 2-Mile Time

EVENT Title: Peer Review & Coaching Session

Estimated Time for EVENT: 40-Minutes

EVENT – Representative image



EVENT Description:

Learners conduct structured peer review using assigned rubrics. They evaluate pacing, heart rate targeting, progression logic, and alignment to partner goals. Instructor circulates to observe, coach, and redirect as needed.

EVENT Deliverables: (what is produced during event)

- Completed Peer Feedback Rubrics
- Identified adjustments for assessment phase

EVENT-required resources: (for facilitator & learners)

- Peer Feedback Rubric
- HR Zone Calculator
- Training Residual Reference Guide

Clarifying Notes on EVENT:

This hands-on coaching phase allows learners to critically analyze and improve their designs. The instructor should monitor discussions, ensuring feedback remains evidence-based rather than subjective. This peer interaction reinforces analytical thinking and supports stronger final designs.

EVENT primary and sub-learning objectives:

- Analyze program design using data.
- Deliver constructive, objective feedback.

EVENT primary content points: (reviewed & assessed)

- Zone accuracy
- Weekly volume adjustments
- Recovery alignment
- Individualization to goals

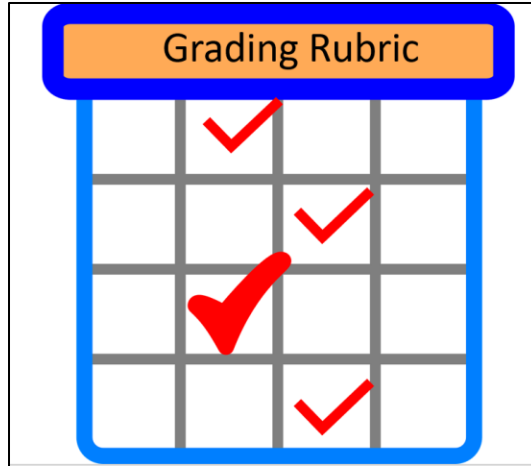
Storyboard Template

UNIT Title: **EVENT Title:** Designing a 30-Day Running Program to Improve Army Combat Fitness 2-Mile Time

EVENT Title:

Estimated Time for EVENT: 40-Minutes

EVENT – Representative image



EVENT Description:

Each learner gathers partner fitness data and independently builds a new customized 30-day plan incorporating heart rate zones, pacing adjustments, residual training principles, and recovery logic. Instructor evaluates design with assessment rubric.

EVENT Deliverables: (what is produced during event)

- Fully customized 30-day running plan
- Instructor Assessment Rubric scores

EVENT-required resources: (for facilitator & learners)

- 30-Day Plan Template
- Instructor Assessment Rubric
- Pacing charts, calculators, worksheets

Clarifying Notes on EVENT:

The assessment task represents full synthesis of learning. The instructor should encourage learners to justify their choices, ensure accurate calculations, and apply evidence-based logic to their designs. This ensures meaningful application of content versus simple checklist completion.

EVENT primary and sub-learning objectives:

- Apply full design process to create individualized plan.
- Integrate all training design components correctly.

EVENT primary content points: (reviewed & assessed)

- Periodization application
- Recovery frequency
- HR zone progression
- Pacing adjustments

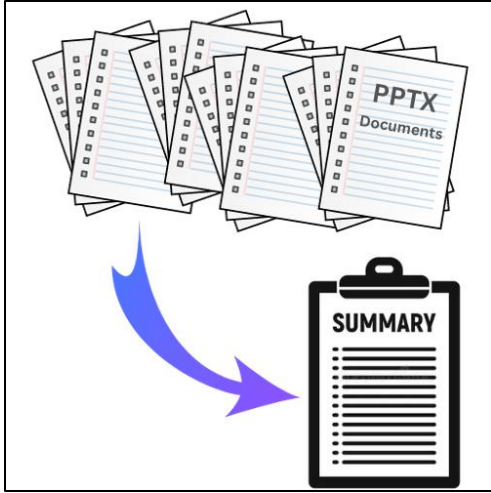
Storyboard Template

UNIT Title: **EVENT Title:** Designing a 30-Day Running Program to Improve Army Combat Fitness 2-Mile Time

EVENT Title: Course Debrief and Reflection

Estimated Time for EVENT: 15-Minutes

EVENT – Representative image



EVENT Description:

Instructor facilitates open discussion on learning experiences, surprises, and adjustments made. Learners complete a written Reflection Worksheet identifying takeaways and future application strategies.

EVENT Deliverables: (what is produced during event)

- Completed Reflection Worksheets
- Verbal reflections shared

EVENT-required resources: (for facilitator & learners)

- Reflection Worksheet
- Whiteboard for debrief notes

Clarifying Notes on EVENT:

The debrief phase consolidates learning, allows for shared insights, and reinforces the application of data-driven training concepts. Guided prompts encourage meaningful self-reflection and provide closure to the instructional experience while strengthening future transfer of learning.

EVENT primary and sub-learning objectives:

- Summarize key lessons learned.
- Identify actionable improvements for future training design.

EVENT primary content points: (reviewed & assessed)

- Data-driven design importance
- Personalized pacing logic
- Reflection on applied learning outcomes