IDE 737 Capstone Project Guidelines and Properties Critique form

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Instructional UNIT Title: EOD Team Leader Certification Preparation **By:** Donny Petrie   **Date:** 2 June 2021

This form was designed to support your thinking about, and effective integration of, instructional design and learning principles into your instructional UNIT. You may choose to create a new UNIT or significantly revise an existing UNIT (as long as you have full access to all current materials).

Each checklist item in the next few pages is included to help guide your thinking about the design of the unit, facilitator guide and/or materials, and learner instructions and resources. The idea is not to go through and just "check" the boxes, rather these items were selected to help you think through multiple perspectives of instructional design, teaching, and learning in support of making good design decisions.

Your goals is to create well-designed instruction by storyboarding the UNIT (design) ***and*** creating (developing) UNIT materials. Given the time frame, you may not be able to fully develop each required resource (e.g., new video, technology-based simulations) however you will need to provide a detailed description of resources that are **not** able to be fully developed in an operational unit prototype format.

The UNIT should include new and/or revised teaching and learning materials for a content UNIT that is between 1 and 2 hours in length, either conducted all together in one sitting <u>or</u> over a specified timeframe e.g., Day 1-one hr. → one week project work → Day 2-one hr. summary/ debrief. The UNIT should be designed to close a knowledge or skill gap for a specific target audience, in a content area of your choice.

The instructional UNIT may be part of a larger course that contains multiple units or a stand-alone unit to be conducted by itself. The UNIT must contain, at a minimum, these events (not necessarily in this order): •UNIT introduction; •content delivery; •hands-on activity; •assessments; •feedback events on learning; •UNIT and/or activity debrief; •learner reflection while following design principles. These events should flow as a UNIT, however in cases where learners have order choices, a logical presentation of the UNIT events should be presented with a note that learners can proceed in their own order. ***Carefully review and use the next three pages of checklists and guidelines to support your design choices & development effort.***

> **STEP 1:** develop a **UNIT narrative**, **content hierarchy**, and **flowchart** using the *slides 1-6 of the storyboard template* and *page 2 of this form* to guide your decisions.

> **STEP 2:** create detailed **storyboard screens** for each **UNIT EVENT** in the **flowchart**. Use *slide 7 of storyboard template*, *pages 2-4 of this form,* and the *instructional unit critique packet* to guide your decisions. Together steps 1 & 2 constitute your UNIT design.

> **STEP 3:** develop (or secure) the **UNIT resources**. Since you may choose to design and develop for any platform (face-to-face, online, hybrid, self-study) you may need to develop or secure any of a number of resources for your UNIT. These may include, but are not limited to, •facilitator guide, •learner guide or packet, •content presentations, •multimedia clips, •web-based/ interactive resources, •handouts, •rubrics, •quiz/test questions and answers, •instructions for activities, •references to reading materials (e.g., books, articles, web-based resources, etc.), •sample solution for expected projects (what should the learner project look like), and others. Do not assume instructors for your UNIT are capable of facilitating UNIT – your project should include everything!

> **STEP 4:** strategically place your ***final completed Project Guidelines and Properties Critique form***, Design document (***Storyboards***) and ***resources*** on your portfolio website (or another site you create). You should present all materials in a way that showcases ***your*** design thinking and skills. Presentation of, and access to, your project is an important criteria for success. Be sure to describe each UNIT component/ resource and how they are used to support UNIT teaching or learning. NOTE: If you are using or referencing existing materials (e.g., readings, videos, audio files, etc.) you can describe or provide a links as to not violate any copyright rules. **POST** LINK (no UNIT materials) to your UNIT to the **COURSE DROPBOX** by due date.

The overall design of your UNIT should incorporate all 5 first principles of learning… (i) learners should engage in real world problems; (ii) learner existing knowledge is activated as foundation of new knowledge; (iii) new knowledge is demonstrated to learners; (iv) new knowledge is applied by learners; (v) learners integrate new knowledge into their own context (Merrill, 2002). Other principles to consider when creating a strong design are summarized in the *Instructional Unit Critique Packet* that includes a •*multiple perspectives thinking guide*, •*events of instruction rubric*, •*instructional and message design rubrics*, and •*overall quality rubric.* Consult this packet too, as you work on your UNIT.

Project Component/ description				Further Information/ Suggestions
Instructional Unit PROPERTIES				
Create a new *or* revise an existing unit with poor evals, content update, poor design	New ☒	▉	Rev ☐	Create a new unit or revise existing unit (at least a 50% revisions)
-if revisions, must have access to all instructional materials	NA ☒	Yes ☐	No ☐	If revisions, you must have access to all existing materials for unit
-If new or revise, either you have expertise in content or have access to content expert	Expert Yes ☒	Some ☐	Expert No ☐	You should have unfettered access content expert help if "no" or "some"
1-2 hour in total length of seat-time (amount of time in direct instruction, not reading or doing self/team assignments)	One ☐	▉	Multi ☒	Seat-time may occur over multiple sessions, e.g., 'homework or activities' in between directed time
Context is important to you or in space where you are working/ hope to work	Yes ☒	▉	No ☐	This unit should be showcased in your portfolio – important to career
Instructional Unit NARRATIVE: Pages 1-2 of storyboard template, synthesis statement describing…				
Overview of unit and its flow including:	Yes	Partial	No	
-instructional goal to close performance gap	☒	☐	☐	purpose of instruction and its context
-learning objectives	☒	☐	☐	in observable/ measurable terms
-target audience description including prerequisite knowledge/skills (may be none)	☒	☐	☐	who, prerequisites for unit
-length of unit (seat-time hours over number of days)	☒	☐	☐	estimated seat-time, length of unit
-format of instruction	☒	☐	☐	classroom, online, hybrid
-primary facilitation strategies (may be multiple)	☒	☐	☐	facilitated, tech-based, self-study
-resources required	☒	☐	☐	books, articles, technology, etc.
-key content points addressed in unit	☒	☐	☐	bullet list of key content for unit
-assessments used in unit	☒	☐	☐	types of tests, assignments, etc.
Instructional Unit CONTENT HIERARCHY: Page 3 of storyboard template				
Content hierarchy – content covered in unit that supports learning outcomes (w/prereq)	☒	☐	☐	map knowledge /skills that define ultimate performance (identify gap)
Instructional Unit FLOW CHART: Page 4-6 of storyboard template				
Flow chart of *entire* course, highlighting where UNIT is incorporated --- IF UNIT is not part of a larger course, create a flow chart for this unit	☒	☐	☐	shows connection between previous and following instruction (if a stand alone unit, only within this unit)
Instructional Unit STORYBOARD: ONE page for each element (e.g., lecture, activity, debrief, etc.)				
Storyboard of the instructional unit - each event in order as it occurs	☒	☐	☐	if learner has order choice, present in a logical order– noting choices
Includes unit introduction event	☒	☐	☐	what is this about, how does it work
Includes content delivery event	☒	☐	☐	providing or learners seeking content
Includes hands-on activity event(s)	☒	☐	☐	Individual or team work with content
Includes multiple types of assessment event(s)- measuring progress on objectives	☒	☐	☐	quizzes, exams, projects or papers w/grading rubrics, graded discussion,
Includes feedback mechanisms (e.g., Q&A, learner showcase, activity debriefs)	☒	☐	☐	Focus on both corrective and confirmation feedback
Includes unit summary and/or debrief, may be instructor- or learner-led	☒	☐	☐	Key points of content learning based on event and objectives
Includes time/ prompts for reflection	☒	☐	☐	Learner confidence/ application

Once you have described the Overall Unit, following the guidelines on previous page, you will develop or modify the resources required to conduct the Instructional Unit following the guidelines below. Your goal is to create a usable prototype of an instructional unit, ready for implementation, that demonstrates your Instructional Designer Standards of Practice competencies and that you can include in your digital portfolio.

Note: Some resources may not be fully developed if they require skills or resources outside the scope of this project, e.g., fully functioning computer-based instruction; high quality video; online tests/quizzes, etc.

Project Component/ description	Yes	Partial	No	Further Information/ Suggestions
Instructional RESOURCES – create or secure instructional materials necessary to *conduct* unit				
Includes *facilitator guide/ packet* to lead unit – guides facilitator through all unit events and provides guidance on giving feedback / debriefing content, including:	☒	☐	☐	may be expanded syllabus and/or part of provided handbook or detailed course or unit descriptions; includes ALL materials used by learners; includes recommendations for working with learners; paper or digital
-unit overview and setup directions	☒	☐	☐	paper or digital
-*content* delivery [ppts, talking points, video clips, readings, web links, etc.]	☒	☐	☐	Paper/ digital/ multimedia; aligned with learning objectives
-facilitator notes to guide *discussions* [questions], event & unit *debriefs*, *activities* (individual / team work)	☒	☐	☐	paper or digital, aligned with learning objectives
-sample project solution or key points [what is expected-format, content]	☒	☐	☐	paper or digital, show acceptable answers and key critique areas
-grading rubrics [for participation, activities, projects]	☒	☐	☐	paper or digital
-assessments/test and grading key	☒	☐	☐	paper or digital
-key points to summarize and prompt learner reflection at end of events	☒	☐	☐	paper or digital, assures review of key content as defined by learning objectives and provided by instruction and activities
Incorporates well-designed teaching strategies to help facilitator engage leaners...				
-embedded teaching strategies that present key content in *logical & meaningful* ways	☒	☐	☐	use mini-cases & frequent reviews, prompts learners to take notes then stop periodically to ask pointed questions-both recall and application; summarize back and forward (what just happened, what is next)
-embedded teaching strategies in learning activities that help learners *visualize* alignment of content, objectives, activities, assessments	☒	☐	☐	use & prompt learners to create/ manipulate visuals of content; periodically discuss how content/ events relate to objectives
-embedded teaching strategies help students understand *complex concepts*	☒	☐	☐	use analogies, examples, stories, that show complexities (in visual, oral, text formats)
-embedded teaching strategies to prompt learners in *completing pre-work*	☐	☒	☐	use worksheets/ reading questions; provide examples of how pre-work learning is critical to unit requirements
-embedded teaching strategies to prompt progressive content *discussions* & *debriefs* in activities and beyond learning environment	☒	☐	☐	use progressive disclosure, ask explicit questions beyond recall like explain, give example or analogy or evaluate scenario
-embedded teaching strategies to engage learners in *summarizing* & *reflecting*	☒	☐	☐	during/ after activities-list or share key content points, share how to practice content
-embedded teaching strategies to engage learners in thinking about their *learning progress*	☒	☐	☐	during/ after activities-what did you learn how well do you understand; standards/ competencies-self-assessment; etc.

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Use this form with *Storyboard Template packet* to prepare a detailed description of your instructional UNIT --- **Page 4 of 4**

Project Component/ description	Yes	partial	No	Further Information/ Suggestions
Instructional RESOURCES – create or secure instructional materials necessary to *participate* in unit				
*Includes **learner guide/ packet** on unit flow and expectations to interact and engage in content learning, participate in events, be successful in events and at the end, etc.*	☒	☐	☐	*may be detailed syllabus and/or part of provided handbook/ note book/ course or unit descriptions; paper or digital format*
*Learner content/ info materials, include support materials to prompt **learning** in the form of…UNIT includes **at least ONE cognitive strategy***				*paper/ digital readings, handouts, links to online resources, etc.; may be included in learner guide/ packet*
-cognitive structuring strategy … like advance organizers to help learners prepare to receive and organize content knowledge	☒	☐	☐	paper/ digital text outlines, questions, graphics, etc. to support content learning preparation and organizing
-cognitive memorizing strategy – mnemonic for recall & structuring content knowledge	☒	☐	☐	paper/ digital text or graphic techniques to support memory/ surface learning
-cognitive generative strategy – support planning, summarizing, questions, building connection through hands-on minds-on events to connect new to existing knowledge	☒	☐	☐	paper/ digital hands-on content learning activities with thinking prompts
*Learner content/ info materials, include support materials to prompt **reflection** in the form of…UNIT includes **at least ONE reflection strategy***				*paper/ digital readings, handouts, links to online resources, etc.; may be included in learner guide/packet*
-reflection strategy … prompt deliberate thinking about past/ future knowledge & application of UNIT content	☒	☐	☐	paper/ digital embedded questions or assignment guidelines to support content learning reflection
-reflection strategy … prompt self-awareness of knowledge growth in UNIT content	☒	☐	☐	paper/ digital embedded questions or assignment guidelines to support content knowledge reflection
-reflection strategy … prompt self- and/or peer-assessment of UNIT learning activities & products (multiple perspectives)	☒	☐	☐	paper/ digital embedded procedures with guidelines and/or rubrics to critique and reflect on results of assignments/ products
Learner involvement in UNIT prompted during teaching and learning events				*interaction & engagement requirements clearly established; support learner active participation in UNIT*
-clear ***instructions*** provided for each assignment/ project/ activity	☒	☐	☐	explain how to participate, what to produce; may be included in learner guide/packet
-***assessments*** (self, peer, and/or instructor) provided & explained for each assignment/ project/ activity	☒	☐	☐	explain how involvement/ deliverables are assessed; tools (tests, rubrics, checklist) are provided & explained for assessed events; may be included in learner guide/packet
-***demonstrating or showing*** learners what is expected of them after content-practice activities (result, products, key points, etc)	☒	☐	☐	show students what/ how to demonstrate content knowledge; demo, sample solution description, completed/ partial deliverable
-content practice activities prompt ***learners to showcase*** & demonstration learning from activities, as defined by objectives	☒	☐	☐	provide directions; check & prompt for progress; emphasize alignment of activities and demonstration of learning to objectives
-assignment/ project/ activity events have ***debriefs*** and/ or ***summary*** sessions where learners 'check'/ demo understanding	☒	☐	☐	prompt for learner understanding through debrief discussions or summarizing activities
-assignment/ project/ activity events prompt ***reflection*** on learning and uses of new knowledge and/or skills	☒	☐	☐	foci – personal learning in unit, how new knowledge/ skill can be applied in UNIT and beyond