Creating Standards-Based Units: A Backward Design Approach

Course Description & Design Model: This course equips educators with the knowledge and skills to create engaging, standards-aligned units using the Understanding by Design (UbD) framework. Participants will learn to develop clear learning outcomes, design authentic assessments, and plan effective learning experiences through a series of interactive microlearning modules.The overall course structure follows the Understanding by Design (UbD) framework, while individual modules incorporate elements from Kemp's Instructional Design Model to address specific learning needs and provide a flexible, learner-centered approach to professional development.

Learning Theory & Rationale: Constructivism aligns well with the UbD process, as it emphasizes learners actively building knowledge through experience and reflection. By incorporating connectivist principles, the course will leverage digital tools and peer collaboration to enhance learning. This approach supports the iterative nature of unit design and encourages educators to connect with broader professional networks (Mohammed & Kinyo, 2020).

Audience: The target audience is new 6-12 teachers. Participants have pedagogical knowledge but need support in systematic unit planning aligned with school and district standards. The course will provide practical strategies for implementing backward design within their specific content areas and grade levels.

Purpose & Contribution: This course will enhance educators' ability to create cohesive, standards-aligned units that promote deep understanding and transfer of learning. By mastering the backward design process, participants will be better equipped to plan instruction that meets school and district expectations, ultimately improving student engagement and achievement.

Course Overview

Module 1: Identifying Desired Results

Learning Outcome: Teachers will develop clear, standards-aligned learning outcomes for a unit plan using the UbD framework.

Learning Objectives:
1. Deconstruct 2-3 state/national standards to identify key concepts and skills for a unit of study.
2. Craft 3-5 essential questions that promote inquiry and deep understanding related to the unit standards.
3. Write 3-5 measurable learning objectives that directly align with the identified standards.

Module 2: Determining Acceptable Evidence

Learning Outcome: Teachers will design authentic assessments to measure student mastery of unit learning objectives.

Learning Objectives:
1. Create a performance task that requires students to apply their learning in a real-world context.
2. Develop a rubric to evaluate student performance on the authentic assessment.
3. Design 2-3 formative assessment strategies to monitor student progress throughout the unit.

Module 3: Planning Learning Experiences

Learning Outcome: Teachers will plan a sequence of engaging learning experiences to support students in achieving unit goals.

Learning Objectives:
1. Outline a logical sequence of 5-7 learning activities that progressively build student understanding and skills.
2. Incorporate at least 3 research-based instructional strategies that support diverse learners into the unit plan.
3. Integrate at least 2 technology tools or digital resources to enhance student engagement and learning.

Learning Mangement System

Creating Standards-Based Units will utilize a flipped learning model, where you'll engage with content independently before participating in collaborative discussions and activities. This approach allows for more interactive and application-focused synchronous sessions. You'll have access to all course materials, including videos, readings, and assignments, through the Canvas platform. To access and enroll in the course, you can simply click on this URL:

https://canvas.instructure.com/enroll/BPJ8N7

Alternatively, you can sign up at https://canvas.instructure.com/register and use the join code: **BPJ8N7**.

References:

Mohammed, S., & Kinyo, L. (2020). Constructivist theory as a foundation for the utilization of digital technology in the lifelong learning process. *Turkish Online Journal of Distance Education (TOJDE)*, 21(4), 90–109. https://doi.org/10.17718/tojde.803364

Module 1: Identifying Desired Results

Module 1 - Learning Outcomes		Module 1 - Learning Objectives	
Goal 1: Teachers will develop clear, standards-aligned learning outcomes for a unit plan using the UbD framework.		**1.1.** Deconstruct 2-3 state/national standards to identify key concepts and skills for a unit of study. **1.2** Write 3-5 measurable learning objectives that directly align with the identified standards. **1.3** Craft 1-2 enduring understandings & 2-4 essential questions that promote inquiry and deep understanding related to the unit standards.	

Introduction	Objective 1.1	Objective 1.2	Objective 1.3
Visual: teachers in various settings	**Visual:** Examples of standards	**Visual:** Examples of well-written learning objectives	**Visual:** Examples of strong enduring understandings and essential questions
Welcome! Welcome to our Understanding by Design course! I'm Alexis White, your instructor for this journey into effective unit planning. I'm excited to guide you through unit planning.To get started: 1. Complete the pre-course survey to help me assess your knowledge. 2. Review the syllabus and introduction video for a detailed course overview. 3. Complete the pre-course survey to help me assess your knowledge. 4. Introduce yourself in our welcome discussion board. For each module: • Engage with the discussion questions to spark your thinking BEFORE meetings • Review readings and video presentations BEFORE our synchronous meetings • Complete assignments DURING and AFTER our meetings, referring to rubrics for guidance. Double-check all due dates in the course calendar. I'm here to support your learning, so please reach out if you have any questions! Looking forward to exploring UbD together and enhancing your unit design skills. Let's create some amazing learning experiences for your student	**Audio/Content:** explanation of how to deconstruct standards	**Audio/Content:** SMART criteria for writing objectives	**Audio/Content:** Characteristics of good EUs and EQs
Activity/Assessment: - Pre course survey & getting to know you introduction discussion -	**Activity/Assessment:** **Task 1.1.1: Standards Deconstruction Challenge** - template for standard deconstruction practice	**Activity/Assessment:** **Task 1.2.1:** Create learning targets from unpacked standards	**Activity/Assessment:** **Task 1.3.1:** Creating EUs & EQs & Reflection Assignment
Notes: (Separate Module) Mention of the flipped learning approach in the Welcome letter **Include reading material giving overview of UbD for learners to brush up on their knowledge -**	**Notes:** Play in small teams to deconstruct standards against a timer. Earn points for accurately identifying key concepts, skills, and creating clear learning targets. (Kahoot or Quizlet)	**Notes:** Consider adding a peer review component to the assessment -	**Notes:**

Module 2: Determine Acceptable Evidence

Module 2 - Learning Outcomes	Module 2- Learning Objectives
Teachers will design authentic assessments that accurately measure student understanding and skill development.	1. Create a performance task that requires students to apply their learning in a real-world context. 2. Develop a rubric to evaluate student performance on the authentic assessment. 3. Design 2-3 formative assessment strategies to monitor student progress throughout the unit.

Introduction	Objective 2.1	Objective 2.2	Objective 2.3
Visual:	**Visual:** Examples of authentic assessments in various subject areas	**Visual:** Sample rubrics for different types of assessments	**Visual:** Infographic on types of formative assessments
Audio/Content: Supplementary reading materials	**Audio/Content:** Characteristics of effective performance tasks	**Audio/Content:** Tutorial on creating effective rubrics	**Audio/Content:** Presentation on integrating formative assessment into instruction
Activity/Assessment: - Discussion on "Authentic Assessments"	**Activity/Assessment:** **Task 2.1.1:** Performance Task Gallery Walk	**Activity/Assessment:** **Task 2.2.1:** Create a rubric in small groups	**Activity/Assessment:** **Task 2.3.1:** Develop 2-3 formative assessment strategies for the unpacked standards & learning targets from module 1
Notes: Research & readings on assessments	**Notes:** Need to make more interactive with voting features, interactive feedback criteria via emojis, set time for reflection - Create a separate section on the board for participants to add sticky notes with their key takeaways and ideas for improving their own performance tasks	**Notes:** Consider a peer review component	**Notes:** Emphasize connection between formative assessments and learning targets

Module 3: Planning Learning Experiences

Module 3 - Learning Outcomes	Module 3- Learning Objectives
Teachers will will plan a sequence of engaging learning experiences to support students in achieving unit goals.	1. Outline a logical sequence of 3-5 learning activities that progressively build student understanding and skills. 2. Incorporate at least 3 research-based instructional strategies that support diverse learners into the unit plan. 3. Integrate at least 2 technology tools or digital resources to enhance student engagement and learning.

Objective 3.1	Objective 3.2	Objective 3.3	Summative
Visual: Flowchart showing progression of learning activities	**Visual:** Infographic on effective strategies for diverse learners	**Visual:** Examples of technology integration in various subject areas	**Visual:**
Audio/Content: Explain principles of sequencing learning experiences	**Audio/Content:** Provide a list of research-based strategies with brief explanations	**Audio/Content:** A curated list of recommended educational technology tools	**Audio/Content:**
Activity/Assessment: - Discussion Question on "Tech Integration" **Task 3.1.1**: Create a learning sequence outline standards & learning targets from module 1	**Activity/Assessment:** **Task 3.2.1:** Select and justify 3 instructional strategies for desired results of module 1	**Activity/Assessment:** **Task 3.3.1:** Practice time using tools from list followed by peer tutorials on appropriate educational technology in order to create a toolkit	**Activity/Assessment:** Submit completed UbD Unit Plan Post Course Survey .
Notes: Emphasize alignment with Stage 1 (Desired Results) and Stage 2 (Assessment Evidence)	**Notes:**	**Notes:**	**Notes:** Create comprehensive rubric for the final unit plan

Course Evaluation Criteria

	3 Points - Exemplary	2 Points- Satisfactory	1 Point- needs Improvement
Stage 1: Desired Results	Clear, measurable learning objectives that align with standards and reect enduring understandings and essential questions.	Learning objectives are present but may lack clarity or full alignment with standards.	Learning objectives are vague, unmeasurable, or poorly aligned with standards.
UbD Stage 2: Assessment Evidence	Variety of authentic assessments that align perfectly with learning objectives and provide evidence of understanding and transfer.	Assessments generally align with objectives but may lack variety or authenticity.	Assessments are poorly aligned with objectives or rely heavily on traditional testing methods.
UbD Stage 3: Learning Plan	Learning activities are engaging, varied, and clearly support the achievement of desired results.	Learning activities generally support objectives but may lack variety or engagement.	Learning activities are poorly aligned with objectives or lack engagement.
Constructivist Learning Principles	Course consistently provides opportunities for active learning, knowledge construction, and reflection on experiences	Some elements of constructivist learning are present, but not consistently applied throughout the course.	Limited evidence of constructivist principles in course design and activities.
Connectivist Learning Principles	Course effectively integrates networked learning, diverse information sources, and technology- enhanced collaboration	Some connectivist elements are present, but could be more fully integrated into the learning experience.	Limited or no evidence of connectivist principles in course design.
Technology Integration	Technology is seamlessly integrated to support learning principles. Students react positively and demonstrate proficiency in using technology for learning.	Technology is used in the course, but not always effectively. Students show mixed reactions and moderate proficiency with technology.	Limited or ineffective use of technology. Students react negatively or show minimal prociency with technology tools.
Differentiation and Personalization	Course offers multiple paths for learning and assessment. Students express high satisfaction with personalized learning experiences.	Some differentiation is present. Students express moderate satisfaction with learning options	Little to no evidence of differentiation. Students express dissatisfaction with one-size-ts-all approach.
Reflective Practice	Course consistently encourages reflection and metacognition. Students demonstrate improved self- awareness and learning strategies	Some opportunities for reection are present. Students show some improvement in metacognitive skills.	Limited emphasis on reective practice. Students show minimal change in metacognitive abilities
Content Quality and Relevance	Content is comprehensive, up- to-date, and directly relevant to course objectives. Includes a variety of engaging, high-quality resources.	Content is generally relevant and up-to-date, with some variety in resources. Most material supports course objectives.	Content is outdated, irrelevant, or lacks depth. Limited variety in resources or weak connection to course objectives.
Student Engagement and Interaction	Provides multiple opportunities for meaningful student- to-student, student-to-instructor, and student-to-content interaction.	Some opportunities for interaction are provided, but may be limited in variety or depth.	Few opportunities for meaningful interaction or engagement.
Overall Course Effectiveness	Strong evidence that the course achieves its intended outcomes and positively impacts student performance and behavior.	Some evidence of positive outcomes and impact on student performance and behavior.	Limited evidence of positive outcomes or impact on student performance and behavior.

Evaluation Table

Directions:	List each interactive task (activity)/tool you have selected for potential inclusion in your course map and online course. You will need to include the name and URL for 4 tasks/tools, one of which will be a storyboard tool for creating a game. Evaluate each task/tool for responsible use and/or safety by placing an X in the appropriate cell. The key below the table will guide you in your decision-making. If the task/tool's use is not responsible and/or safe, then select and evaluate an alternative task/tool for your course map and online course.

Interactive Task (Activity)/Tool	URL	Responsible Use				Safe Use		Alternative Task (Activity)/Tool
		Fair Use	Licensed	In-House	Not Justified	Safe	Not Safe	
kahoot.it	https://kahoot.com/?utm_name=controller_app&utm_source=controller&utm_campaign=controller_app&utm_medium=link		✔			✔		Standards Deconstruction Challenge - Teams earn points for accurately identifying key concepts, skills, and creating clear learning targets.
Miro	https://miro.com/app/board/uXjVLRZHhrQ=/		✔			✔		Performance Task Gallery Walk -
Quizziz	https://quizizz.com/		✔			✔		Strategy Quest - A series of quizzes linked together to form a quest to unlock each instructional strategy.
Canva	https://www.canva.com/		✔			✔		Storyboard tool as well as audiovisual content creation

Key for Completing Evaluation Table:

Responsible Use:

Fair Use if the content is copyrighted, but you are using it appropriately for an educational purpose.

Licensed if it is clear in the website pages that the owner is allowing this use.

In-House if you or a subject-matter expert with whom you are working created the content, activity, or assessment.

Not Justified if none of the above applies.

Safe Use:

Safe if there are links to websites that are age-appropriate and safe for students to view.

Not Safe if the websites are not age appropriate would have to be replaced in the course for responsible usage.