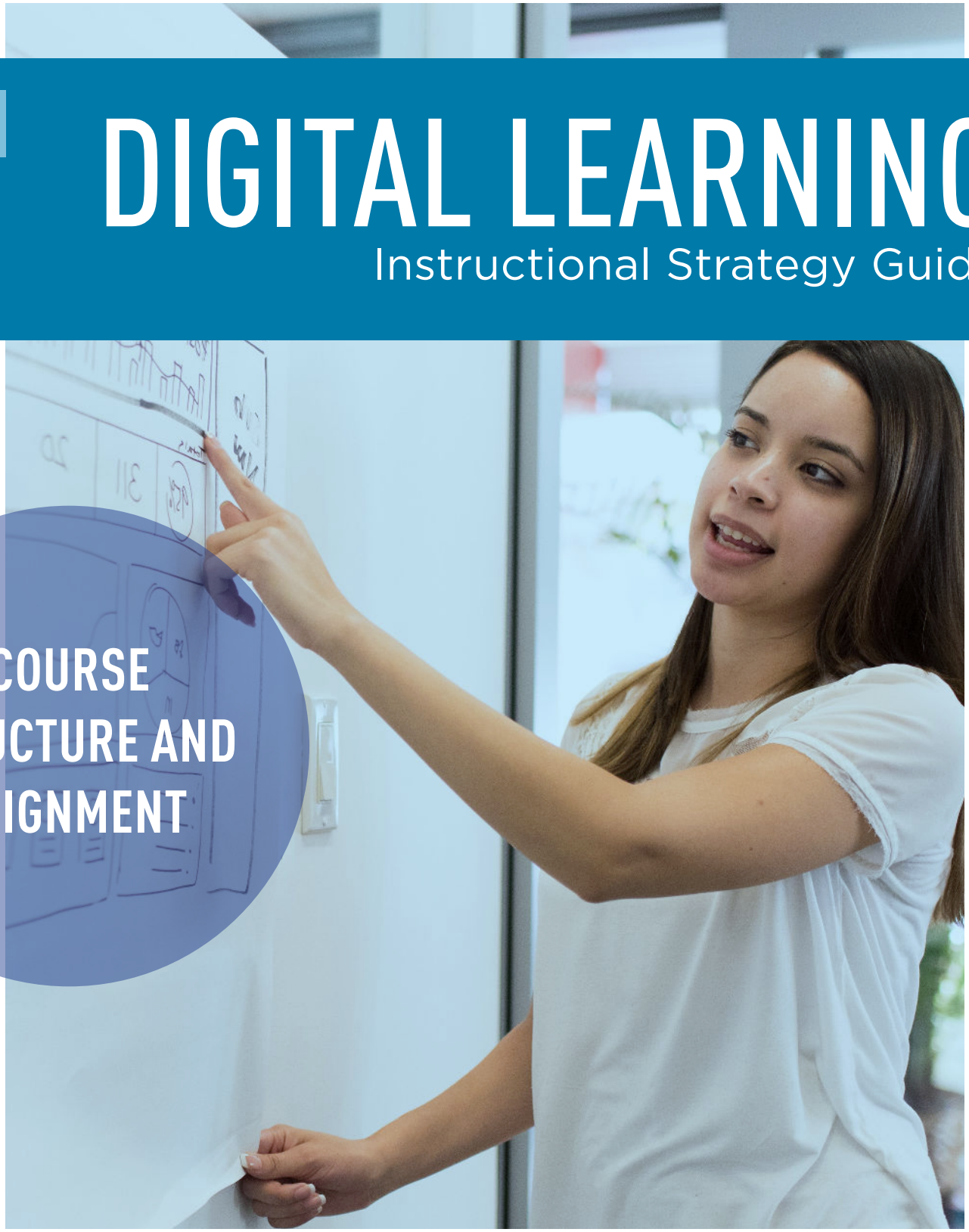
DIGITAL LEARNING

Instructional Strategy Guide



COURSE STRUCTURE AND ALIGNMENT

everylearner everywhere

Achieving the Dream

Michele Hampton PhD., Professor, Business Administration, Cuyahoga Community College

WHAT IS COURSE STRUCTURE AND ALIGNMENT?

Instructors can stay focused on facilitating and fostering student learning when content is well organized, aligned and presented with coherence. When using digital courseware it is especially important that instructors ensure content is consistent throughout all elements of the course (i.e., readings, presentations, assessments).

- **Course structure** involves the organization, sequencing, and connecting of course content into a cohesive set of elements that supports the learning objectives and outcomes of a course.

- **Alignment** occurs when content and activities completed in digital courseware are seamlessly mapped to match the content and activities occurring in all other course elements. This provides students with the ability to immediately explore and apply the concepts from the digital courseware that connects to the content and materials presented in class.

For instance, alignment is achieved when the articulation of content (i.e., vocabulary, framing, approaches, and strategies) in the courseware supports how it is articulated and presented by the instructor in class and in other course materials. Understanding that there can be a variety of ways to perceive a concept or problem set, it is important that instructors are aware of the courseware's articulation of that content in order to align it accurately. It is important for instructors to identify differences in vocabulary, numerical formulas, and/or approaches that might cause confusion for learners that are not familiar with the discipline-specific content.

Paired with alignment, a consistent, clear, and organized course structure is a critical component of creating a learner-centered environment. This transparent design approach helps to manage student expectations and reduce confusion and anxiety regarding course requirements.

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Who benefits from a well-structured and aligned course?

Students
Students benefit from having alignment, structure, and organizational flow between the digital courseware and the course content by experiencing a consistent explanation of course concepts throughout all instructional assets. Students also experience a direct learning pathway and have a clear understanding of how course elements fit together.

Faculty
Faculty benefit from efforts made to continuously improve the course and commit to a consistent strategy for assignment, assessment, and content organization and presentation. Faculty can also more easily foster student learning and inquiry while identifying potential student confusion or pain points inside of a well-organized and aligned course.

Institutions
When courses are well-organized and aligned, they enhance the institution's ability to track student progress and faculty curriculum development efforts by allowing for course reviews that easily reveal the effectiveness of content and teaching approaches.

How to structure a course:

Structuring course content, activities, and assessments begins with an examination of your course level objectives and any existing course outline or course map to be clear on what you want your students to know and be able to do at the end of the course.

When designing a course, move through the following tasks to set the stage for building out a coherently structured and aligned course:

1. **Identify** course topics and begin to consider their order.
2. **Use** the course topics to **create** a topic map or course outline and determine whether a topic should be introduced, reinforced, and/or assessed. A topic map designates what is taught and how.
3. **Determine** the most advantageous pedagogies and approaches to support introducing, reinforcing, and/or mastering the course topics. It is helpful to map out which approach will be most beneficial to explore topics: as an introduction of that content, reinforcement of that content, or assessing the topic for mastery.

You may determine that the digital courseware learning experience is best completed before class to introduce content and prepare students for active engagement in class or you may determine that the digital courseware activities are best completed after class to reinforce content presented during live class sessions.

Effective pedagogies can include a range of activities such as individual work, group work, and guided learning. Different modalities lend themselves to different pedagogies. For instance, guided learning or cooperative learning provides students with an opportunity to share ideas and collaborate with each other which supports a gradual move to greater independence.

In the example of a flipped classroom approach, all of the topics are introduced before students get to class. A lecture using traditional and media-rich content can then be used to reinforce the topics and a short formative assessment at the end of class can reveal whether students grasped the important concepts before they are asked to complete the remainder of their reinforcement activities outside of class time.

For an in-person course, educators can make some use of digital courseware both within and outside of class meetings. For example, a learning management system can be used to create a repository for course resources while digital courseware can guide students through their learning experience.

Below is an example of a course topic map for an economics course that indicates where (introduce, reinforce, mastery) and how (delivery) topics will be presented in the course.

Example of Learning Objectives and Course Topic Map for a Fully Online course

On the next page, you will find each topic in the far-left column is mapped to a particular type of assignment or assignments that is/are intended to introduce, reinforce or assess that topic.

Note that the assignments are varied to help maintain student engagement and to accommodate variations in student learning styles. This course topic map can also be used for blended and in-person courses. If a class is designed to “flip”, students are introduced to a topic prior to class and that topic is reinforced once they come to class.

Learning Objectives:

Analyze the law of demand and the law of supply.

Evaluate the difference between changes in price and non-price determinants of demand and supply.

Analyze the impact on price and quantity from changes in demand and supply.

- Consider activities and assignment types that can be used to introduce, reinforce, and assess mastery of course topics.

Course Topic Map

TOPIC	INTRODUCE (ONLINE)			REINFORCE (ONLINE)					MASTERY (ONLINE)	
Assignment Type	Video	Avatar	Textbook	Adaptive HW	Problem Set	Study Guide	Adaptive Simulation	Online Discussion	Wrting Assess-ment	Exam
TOPIC 1: Markets and Prices	✓	✓	✓	✓	✓	✓				✓
TOPIC 2: Law of Demand	✓	✓	✓	✓	✓	✓			✓	✓
TOPIC 3: Change in Demand	✓	✓	✓	✓	✓	✓	✓		✓	✓
TOPIC 4: Determinants of Demand	✓	✓	✓	✓	✓	✓			✓	✓

Example assignments for each category are listed below

1

Introductory Activity Examples

Videos

•

Course Readings

2

Reinforcement Activity Examples

Lecture Mashup

•

Concept/Topic Review (homework)

•

Problem Sets (allow for in-class and out of class completion depending on the modality)

•

Study Guides (allow for in-class and out of class completion depending on the modality)

•

Application-Based Activities/Adaptive Simulations

•

Group Discussions (allow for in class and out of class completion depending on the modality)

•

Formative Assessment (in class Kahoot challenge)

3

Mastery Activity Examples

Case Analysis (include both video-based and text-based cases)

•

Writing Assignments

•

Exams (includes random question selection from a predetermined pool of questions)

•

Student Presentations

•

Student-Created Podcasts

Determine the grading system for the course

Identify low stakes "completion assignments". Typically, assignments that introduce topics are low stakes while assignments used to reinforce or assess topic mastery would be worth more points.

Calculate the weight or grade contribution of each course assignment.

Integrate digital courseware in your course. Be sure to appropriately incentivize students to complete digital courseware activities and assignments. Students feel incentivized and experience higher grades when digital courseware activities are no less than 10% of their overall course grade.

Grading System Example

- The assignment that introduces the course content is titled "Chapter Videos". The course content is delivered via 6-8 publisher-created videos presented per topic. After watching the videos, students are required to answer 2-3 questions per topic (and therefore per video). This is a low-stakes assignment and contributes 15% to the total course grade.
- Group discussions, digital courseware activities, and simulations are used to reinforce topics in this example course. These assignments contribute 48% of the total course grade.
- Exams are used to exhibit topic mastery and are worth 38% of the total course grade.

Course Assignment Contribution

15%	48%	38%
Introductory assignments	Reinforcement assignments	Mastery assignments

ASSIGNMENT TYPE	COURSE ROLE	POINT VALUE	# OF ASSIGNMENTS	TOTAL POINTS	PERCENT OF TOTAL GRADE
Chapter Videos	Introduce	10 points/ chapter	12	120	15%
Group Discussions	Reinforce	10 points each	4	40	5%
Digital Courseware Activities	Reinforce	10 points/ chapter	12	120	15%
Application-Based Activities (Simulations)	Reinforce	20 points each	11	220	28%
Exams	Mastery	100 points each	3	300	38%
				800	**100%**

Determine how assignments are scaffolded and identify class pacing.

Sharing the learning process with students provides them with a transparent roadmap to their learning. This roadmap helps to manage course expectations and equitize the learning experience. **This includes:**

Pacing:

Determine the timeframe that each assignment is available for completion. For this course example, each assignment is available for 3 weeks.

Scaffolding:

Determine the optimal order that students should follow to complete assignments.

An impactful practice that adds value to the student experience and your course design is to present the course structure to your students in the syllabus.

For example, James Gray, a Math instructor at The Community College of Aurora, offers a way to exemplify the learning process (structure) of a course to students. Here is an example of the learning process for a flipped and blended economics course using Gray's format:

Learning Process (course structure) for an economics class

Pre- Class Meeting

The content for this course is presented using publisher-created videos. This course uses an all-digital content delivery system that replaces a traditional textbook. These videos introduce topics and vocabulary. Bring any questions that may come up for you to class for discussion and clarification.

Class Meeting

During class, you will be presented with highlights of material from the chapter via media-rich content. We will also work together in large and small groups to apply concepts to problem sets and discuss the solutions. Kahoot will be used at the end of the class to highlight important concepts and give you a sense of the concepts you may need to clarify and continue to practice.

Homework

Provides an opportunity for you to further your work with the concepts discussed and applied in class. The homework adapts to your answers and helps reinforce topics that still need clarification. Completing the homework is the goal and you will earn the full points for your homework assignments for doing so.

Application-Based Activities

These online simulation-based scenarios allow you to practically apply concepts. The simulation responds to your answers and moves you through the assignment based on your responses. Completing this assignment provides you with an opportunity to reinforce topics.

Discussions

Discussions may be online or in class and provide you with the opportunity to learn from and exchange ideas with your classmates. Discussions focus on current news stories that incorporate topics from class which allows you to reinforce your understanding of course topics.

Exams

Exams will be given after each major unit and may contain Multiple Choice, Scenario, and/or True/False questions. Exams assess the mastery of unit concepts.

How to Align a Course:

Paired with structuring a course, alignment allows instructors to ensure content is consistent throughout all elements of the course.

Here are 6 steps to help ensure the presentation and framing of content is consistent throughout all elements of a course:

1. Align the order of the topics presented in the digital courseware with the course's topic map to ensure that the material is correctly sequenced.
2. Review the digital courseware in detail to determine vocabulary use, content framing, approach, and instructional strategies.
3. Compare the digital courseware content to how that same content is presented in other course materials and assets.
4. Identify any discrepancies and make changes or notes as needed to ensure that content framing and approach can be consistently presented or explained to students to ensure coherence.
5. Experience the courseware through the student mode. Take the time to read the content and complete the assignments through the courseware as a student to understand what they are experiencing. This knowledge will help prepare you for student questions and help design effective onboarding materials.
6. Make sure to allow for ample planning time to engage in the alignment process.

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