

Course Map and Mapping Components

What is a Course Map?

A course map is a visual overview of all components of an online course. Course maps organize the structure of a course around its learning modules. Each module is broken down into components such as: module objectives, assessments, activities, instruction, and those are linked, or mapped, to the corresponding course learning objectives to demonstrate alignment. A template will be provided to help guide you through creating your course map.

Why Map your course?

- Create manageable units of learning (modules).
- Determine effective assessments that align with learning objectives.
- Ensure learning builds and scaffolds appropriately.
- Provide clear expectations for your learners.
- Design a roadmap for your course.

Creating a course map is essential to online course development as course maps demonstrate alignment and a path for your course. The process of mapping a course provides a complete view of the course with the learner in mind. This guide suggests working backwards, using a design methodology known as Backwards Design, beginning with identifying the desired learning objectives first.

What is Backward Design?

The backward design approach is a learner-centered approach and is useful for developing many types of instructional courses. Backward design ensures that course mapping focuses on the outcome of the course and aligns all course components support the desired learning objectives.

In their explanation of backward design, Wiggins and McTighe (2012) suggest starting course design with determining intended learning objectives and acceptable evidence before planning learning experiences, instruction, or learning materials.

There are essentially three overall stages involved in backward design:

- **Identify Desired Results** – In this stage you will identify the outcomes or the intended results of your course and describe what your learners should know, understand, and be able to do by the end of the course. These statements are your learning objections and can often be found within the course content summary.

- **Determine Acceptable Evidence** – The evidence that you are looking for is evidence that validates and demonstrates achieved learning objectives (what do students need to do in order to demonstrate successful completion of the learning objectives). In this stage you should identify how you plan to assess learners on their knowledge and mastery of information, skills, and attitudes and determine proficiency levels, as well as the kind of evidence learners need to demonstrate at those varying proficiency levels. These collective assessments are your formative and summative assessments, and the proficiency criteria are your grading rubrics.
- **Plan Learning Experiences and Instruction** – The learning experiences and instruction should give students the opportunity to gain an understanding, construct meaning from their knowledge, and place that knowledge into practice. Think about the kinds of activities that will give your learners the opportunity to demonstrate their progress, provide evidence of their learning, and establish a learning community with their peers. Then, think about the instructional material that will support your learners to understand the principles, master the skills, and construct meaning in order to successfully complete the assessments and activities within your course.

Assessments

After defining your module learning objectives, determine how you will assess the knowledge learners have gained, the skills they have mastered, and their ability to determine and construct meaning. The assessments below are a few examples of the formative and summative assessments that can be incorporated into an online course. Not all assessments have to be graded or need to have a point-value; however all assessments in a course should be meaningful and contributing to the desired learning objectives.

Formative Assessments

Formative assessments are ongoing throughout a course and can be incremental or sequential, building upon one another. Formative assessments help instructors gauge how learners are progressing, how learners perform at specific milestones, and how learners engage with the material. Formative assessments also provide learners the opportunity to put their knowledge into practice, self-assess, ask clarifying questions, and reflect on their learning. These types of formative assessments can often drive instructor-learner contact, require active feedback, and trigger engagement throughout the online or hybrid course.

Summative Assessments

Summative assessments occur at the end of a course or at the end of a series of modules and typically result in a score or a grade. Summative assessments evaluate the learner's achievement of the desired learning outcome at the completion of the course or learning module. Summative assessments are higher stakes, and often consists of performance evaluations, authentic writing assignments or projects, or exams.

When designing your assessments try to focus on authentic assessments or assessments that use creative learning experiences to test students' skills and knowledge in realistic situations. Authentic

assessment measures students' success in a way that's relevant to the skills required of them once they've finished your course or their degree program.

Formative Assessment Examples	Summative Assessment Examples
Quizzes	Essays
Discussions	Research Papers
Reflective Journals	Projects
Peer and Self-Assessments	Presentations
Collaborative Group Work	Final Exams
Case Studies	Portfolios

Learning Activities

After determining the formative and summative assessments for your course, think about the level of interaction this course will encompass and the kinds of activities that will help your learners gain practice and build their skills. An online course that engaging involves meaningful learning activities. Learning activities include interactions and engagements that allow learners to practice, self-assess, obtain feedback, and establish retention and transfer of their learning. These interactions can be categorized into three types: learner-content interaction, learner-learner interaction, and learner-instructor interaction.

To identify the appropriate learning activities for your course, consider the kinds of interaction that will contribute to a deeper understanding of the instructional material, give learners the opportunity to practice and document specific procedures and methods, engage learners in collaborating with their peers, and improve their skills through helpful feedback from the instructor

Learner to Learner Interaction	Learner to Instructor Interaction	Learner to Content Interaction
Discussions	Office Hours	Instructional Materials
Collaborative Group Work	Zoom Synchronous Sessions	Self-check Quizzes
Wikis	Discussions	Videos
Break-out Rooms	Announcements	Lab Work
Collaboration tools such as Google Docs	Rubrics with Feedback and Comments	Practice Exercises
Presentations/ Debates	Assignment Feedback	Multimedia Materials

Instructional Materials

In backward design, instructional materials are determined after establishing the learning objectives, assessments, and activities for the course. This helps us focus on the learner's perspective and the end

goal of the course. This method also helps instructors determine essential information versus extraneous information that may not contribute to the objectives of the course.

Now, consider the kind of instructional materials that will best equip your learners to participate in activities, succeed in their assessments, and achieve the intended objectives. Think about the learning experience you want your learners to gain in each module and in your course as a whole. Determine the most appropriate materials and method(s) for instructional delivery, which includes but are not limited to: video, textbook readings, recorded demos, PowerPoint slides, articles, and graphics. Keep in mind that delivery of content should always be accessible, providing alternative modes of delivery: transcripts, captions, descriptive text, speech-reader capability, searchable text, etc...

Modules

As you begin to map your course, think about your learners and how to guide them towards the end goal of the course. Decide how your course learning objectives build upon one another or scaffold. For example, foundational learning outcomes that are lower on the cognitive scale such as define or explain, are typically addressed early on in the course while higher-level cognitive skills such as distinguish or design may not be accomplished until later.

Next, structure your course according to the order of your course learning objectives from lower complexity to higher complexity. Determine how the objectives can be broken into units of learning. For example, Course Learning Objectives I and II might be achieved together in one learning module earlier in the course.

Alignment

“The concept of alignment is intended to convey the idea that critical course components work together to ensure that learners achieve the desired learning outcomes” (Quality Matters, Inc., 2018). Measurable course and module/unit-level learning objectives form the basis of alignment in a course. Other elements of the course, including assessments, activities, tools, and learning materials also are part of alignment and support the learning objectives. Alignment is a key part of backward design and is visualized through the course mapping process. Using the Course Map Template to map out your course will help you determine the essential assessments and activities that build comprehension and application of the learning material, leading to the achievement of the expected objectives. A well-aligned course means that all components of the course contribute to the learner’s experience and lead them directly towards achieving the desired objectives.

Why Alignment?

Research has shown that students often struggle, lack motivation, or fail to complete online courses due to information overload, ineffective time management, and lack of meaningful and personal connection. Alignment attempts to tackle these challenges by ensuring there is a connection between the learning material, tools, activities, and assessments to the learning objectives, which results in more intentional instruction, appropriate assessments, and meaningful engagement of learners. According to Wiggins and McTighe (2012), alignment also provides consistency for students and supports more accurate construction of course concepts. Alignment helps to:

- Ensure that each learning objective is achievable and has proper learning materials and activities that build comprehension and ability.

- Show clarity and transparency in purpose, process, and evaluation of learning.
- Enable metacognition – control and regulation of one’s own learning
- Prevent information overload and extraneous time spent on activities that don’t contribute to achievement of learning outcomes.
- Determine assessments that accurately and fairly evaluate achievement of the learning outcome.

Alignment on the Course Map

On the course map template you will state which learning objectives will be addressed in each individual module. You should list all course objectives on page one using Roman Numerals. For each module, you will indicate which course outcomes are being addressed by referencing to each course objective by their Roman numeral.

When listing your module objective you should list each using an integer based upon the module number.

For example:

Module One Objective One would be written 1.1

Module Four Objective Three would be written 4.3

To align course objectives with module objectives you will write the module outcome then write the Roman numeral(s) of the course objective(s) that your module objective aligns with.

Now that alignment has been made between learning objectives and module learning objectives you will want to align the rest of the course content. All assessments, learning activities, and instructional materials should align to at least one module learning objective. By doing so all components of the course will align back to your course's learning objectives.

References

McTighe, J. and Wiggins, G. (2012). Understanding by design framework. *ASCD*. Retrieved from http://www.ascd.org/ASCD/pdf/siteASCD/publications/UbD_WhitePaper0312.pdf

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