Best Practices of Course Organization and Information Design

This document focuses on well-known and easily implemented best practices of information design and visual communication that instructors can use to help facilitate student learning.

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Develop an “Organizing Framework” and Create a Course Map or Diagram

There is no one “right way” to organize online course materials and activities! The framework and approach you use will vary depending upon your educational goals and instructional preferences, although the community colleges are moving towards the use of a more consistent structure to support student learning. However, in terms of the “top level” structure, a course might be organized:

- By units or modules based upon subject-specific concepts or theories (i.e., Cognitive, Behavioral, Social, and Developmental Psychology).
- Chronologically by week.
- By chapters in the textbook being used.
- By complexity of the content or ideas being introduced.
- By a combination, i.e., major units, containing sub-units organized by week, chapter, etc.

The framework that you identify for your course structure is probably going to be the first step in developing a course map. Though this can be a time-intensive aspect of developing your course, a course map will help you save time once you actually begin building your course in Blackboard. In the process of developing your course map, you can address the following planning activities:

- **Backward Design as the basis for course structure:** Using the “Backward Design” approach, you will first identify course and unit outcomes, then map out the alignments between course outcomes, unit outcomes, and evidence of learning that will help you develop assessments. Then associated activities and resources can be developed or identified.

- **Content organization and design:** Since you may not actually have all of the content developed or identified, the process of mapping out your course before working in Blackboard will help you identify gaps and make note of what still needs to be done.

- **Sequence:** Ordering elements within each unit (module, chapter, topic, etc.) in a meaningful way can reduce student anxiety and enable them to more easily find what they need in your course. Gagne’s “Nine Events of Instruction” (discussed later) can help you decide the order of information.

- **Timing:** The estimated time it will take students on average to review or complete unit activities should be part of the planning process (based on the Carnegie Unit targets for each week).
Align Unit Outcomes, Assessments, Activities and Course Content

- Creating a document (or documents) to help you plan and organize your course will save you a great deal of time. This can easily be done in Microsoft Word using tables.
- Below is a simple table in Word that could help an instructor identify supporting assessments, content, and activities that would be associated with each unit outcome.

<table>
<thead>
<tr>
<th>Unit Outcome Reference to relevant Unit Outcome, example: Unit 1 – outcome 1 = U1-01</th>
<th>Assessment OR description of “acceptable evidence of learning”</th>
<th>Supporting activities/resources (include description/URL/source info)</th>
<th>Description</th>
<th>Est. Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1-O1</td>
<td>Chapter 1, Intro to Psych pp. 35-52 in Smith text</td>
<td>Text reading</td>
<td>1 hour</td>
<td></td>
</tr>
<tr>
<td>U1-O1, O2, O3</td>
<td>Coursera and Thomsen <a href="http://www.psychologists.org/evaluating">www.psychologists.org/evaluating</a></td>
<td>Article</td>
<td>20 minutes</td>
<td></td>
</tr>
<tr>
<td>U1-O2, O3</td>
<td>Personality Theories 8 approaches <a href="https://www.youtube.com/watch?v=vTH1WudRfXI">https://www.youtube.com/watch?v=vTH1WudRfXI</a></td>
<td>Video YouTube</td>
<td>10 minutes</td>
<td></td>
</tr>
<tr>
<td>U1-O1, O2, O3, O4</td>
<td>U1-assgn1</td>
<td>Create outline of 8 step assessment based on Coursera and Thomsen article</td>
<td>assignment</td>
<td>1 hour</td>
</tr>
<tr>
<td>U1-O4</td>
<td>Compare/Contrast C&amp;T dialectical implications</td>
<td>Discussion forum</td>
<td>30-45 minutes</td>
<td></td>
</tr>
</tbody>
</table>

Organizing Course Content on Your Computer

- It is highly recommended that before you create your course content, or upload any course content into Blackboard, you first organize it into folders based on your planned course structure. This folder structure will make it easier for you to find and keep track of your content.
- You may even want to create a sub-folder structure on your own PC that mirrors the organizing framework you have identified for your course.
  - Remember, there cannot be more than one level of subfolders inside of each “unit folder” (because the next version of Blackboard places a limit on subfolder levels).
Principles of Information Design That Enhance Student Learning

Once you know the organizing framework and have a course map, it is time to think about how to design or edit text content in a way helps students comprehend it. The principles in this section, Classification and Consistency can help you design your course in a way that helps students “make sense” of the information and activities you provide.

Classification: Enhancing Encoding and Recall

The principle of classification is supported by research that suggests that a student’s ability to retrieve information is dependent upon the organization imposed upon the material during cognitive encoding. Essentially, you are imposing recognizable, repeating patterns related to the grouping, ordering, and relative importance of course content.

- Chunking:
  - A course menu in clearly defined sections.
  - Dividing folders into smaller segments to minimize scrolling.
  - Creating a clear visual hierarchy using headings and subheadings in documents and text content.

- Sequencing:
  - Ordering the chunks or elements in a clearly prioritized and meaningful hierarchy. Gagne’s “Nine Instructional Events” can help you to decide how to sequence your course content and activities.
  - Using numbered or bulleted list format rather than paragraphs for instructions or explanations.

- Filtering:
  - “Filtering” refers to visual and typographic cues like bolding, italicizing, and icons that help draw attention to key points. This helps students to recognize and classify some information as “need to know” and other information as “nice to know” information.

Consistency: Enhancing Readability & Comprehension

The principle of consistency in your course organization and information design subtly enhances navigation and readability.

- Consistent design rules: Imagine if you adopted a textbook and every chapter and every page was designed differently, with no consistent “look and feel” imposed on the page design? A reader would need to “relearn” how to read each page individually, since there would be no repeating pattern of headings, font size and style, linespace line width, sidebars, pull quotes, colors, margins, etc.
  - Creating templates in Word or PowerPoint can save a lot of time and contribute to the overall consistency of the materials you create.

- A consistent sequence of elements inside folders: If a consistent sequence is used, students will quickly discern the pattern and anticipate what will be expected in each unit.
• **Consistent naming:**
  o Folder names, names of tests, quizzes, discussions, similar types of documents...*all of these should all be named in a consistent way.*
  o Example: Don’t have one quiz named “Chapter 5 quiz” and another named “Ch 5 quiz” or “test-chapter 5.”
  o The references in your course Syllabus to specific items that appear in Blackboard (i.e., folders, tests, assignments, articles) *must match exactly* with the names of those items as they appear in Blackboard.
  o Example: Don’t refer to “Ch 5 quiz” in your syllabus, but name it “Quiz #5” in Blackboard.

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**Meaningfully Sequence Your Course Content and Activities**

Using your course map as your guide, the folders you create in Blackboard enable you to sequence your course content, activities, and assessments.

**Robert Gagne’s “Nine Events of Instruction”**

1. **Gain attention:** A case example or scenario or sample problem relevant to the topic.
2. **Describe the goal:** An overview or introduction of the module objectives, including relevance to the overall course goals.
3. **Stimulate prior knowledge:** Review previously presented relevant rules or concepts and connect them to the new material to be addressed in the current module. Can include activities that provide students with an opportunity to test their prior knowledge through a self-test, game, puzzle, or other learning activity.
4. **Present the material to be learned:** For example, text, lecture, demonstrations, multimedia, graphics, audio files, animations, etc.
5. **Provide guidance for learning:** Discussions to enable learners to actively reflect on new information in order to check their knowledge, worked problems, practice sessions in a coached setting so students can determine/identify gaps in their knowledge.
6. **Elicit performance:** Learning activity to help prepare students for more high-stakes assessments—reflective essay, research project, discussion, practice tests, homework, etc.
7. **Provide feedback:** Immediate, specific, and constructive feedback is provided to students.
8. **Assess performance:** Assessment activity, such as a research project, essay, demonstration, or test. Provide feedback in a timely manner.
9. **Enhance retention and transfer:** Provide opportunities for additional guided practice, worked problems, or informal practice/problem-solving opportunities.
Page Layout Principles That Help Students Learn

Just a few simple best practices can meaningfully improve your documents.

Writing

- **Heads and subheads** introduce new topics and help readers to quickly scan a document.
  - Headings in the form of questions can help students read more actively.
  - Most documents should not have more than three heading levels!
- **Numbered and bulleted lists** provide high skim value and improve readability and retention.¹*
- “**Information-carrying words**” in subheads, bullet points, and paragraphs highlight also improve the comprehension and retention.
- **Keep paragraphs short.** Large blocks of text are avoided by readers.

Layout Tips

- **Use a consistent design template** for all of your Word documents and PowerPoints.
- **Use spacing effectively and consistently to establish visual groupings in your document.**
  - Related items should have less space between them; items that need to be differentiated should have more space between them. Make sure the spacing is consistent.

Enhancing Legibility and Readability: Working with Type

- **Use different fonts and styles** to help readers differentiate heading levels:
  - For example a “sans serif” font for headings and “serif” font for text.
- **Type size and style** influences viewing behavior. 11-12pt for docs; 14pt **sans serif** for web. Many people assume that larger text sizes are better but they actually decrease readability. Fancy fonts (script, stylized, etc.) **impede** readability and comprehension!

Graphics, Color, and Backgrounds

- **F-Shaped pattern:** People scan text in an f-shaped pattern. Avoid using boxes or rules to emphasize text elements. These stop the progression of the eye
- **Avoid “decorative graphics”:** Research suggests that decorative graphics--as opposed to graphics that are relevant to the text--can actually **hinder** learning. Use graphics **only** if they illustrate a concept or add value to the text.
- **Color & Contrast:**
  - Don’t use color alone to differentiate different text; however, you can combine color cues with some other type of visual cue (underlining, italic).
  - Low contrast between background and text negatively impacts readability.

# Designing your Course to be “Mobile Friendly”

- Keep in mind that most of your students will probably be interacting with your course primarily through mobile devices such as phones or tablets. We strongly recommend that you download the Bb Instructor app and look at your course on a mobile device.

- **Blackboard Mobile apps** for faculty (*Blackboard Instructor app*) and students (*Blackboard Mobile app*) display content in a view referred to as “responsive design,” which displays course content in Bb quite differently from the way it appears in a web browser on a computer.

- **Below are some screenshots** (from an iPhone 5) to give you an idea of the way Bb tools or content displays on a mobile device (iPhone 5).

<table>
<thead>
<tr>
<th>Course Entry Point</th>
<th>Announcements</th>
<th>Course Content folders</th>
</tr>
</thead>
<tbody>
<tr>
<td>After you select the course you want to view this view displays.</td>
<td>Bullets and bolding do not show in Announcements.</td>
<td>Neither descriptive text nor graphics under the folders is displayed.</td>
</tr>
</tbody>
</table>

- **Check your courses Responsive Design View after course reorganization** - Download and install the Blackboard Instructor app to see how your course looks on a mobile device. This will help you recognize and remove elements that are causing a great deal of scrolling in mobile view, and it will also show what does and does not display in the Responsive Design view—how text formatting and fonts look, etc.

- **Check information in Blackboard Help regarding how to create “Mobile Friendly Courses.”** Disregard anything referring to ULTRA. Just look for LEARN information.
  
  - https://help.blackboard.com/Learn/Instructor/Course_Content/Mobile_Friendly_Courses/Create_Mobile_Friendly_Content
  
  - https://help.blackboard.com/Blackboard_Instructor/Course_Content

- **To recreate (somewhat) the “Responsive Design” view on a PC web browser**, simply use the Control key and the “+” key at the same time zoom in on your browser. The right pointing arrow at
top left expands the course menu. It will look like this:

- Students and instructors can download *Blackboard Instructor* or *Blackboard Student* from Google Play or the App Store. After download, search on “Connecticut Community Colleges” and then agree to Bb terms of use. You will be prompted to log in using your NetID and Password.

  - Instructions related to the Bb Instructor app can be found here: [https://help.blackboard.com/Blackboard_Instructor/Quick_Start#install-app-and-log-in](https://help.blackboard.com/Blackboard_Instructor/Quick_Start#install-app-and-log-in)
  - Note: The *Blackboard Instructor* app does not have all grading functions ready at the present time.