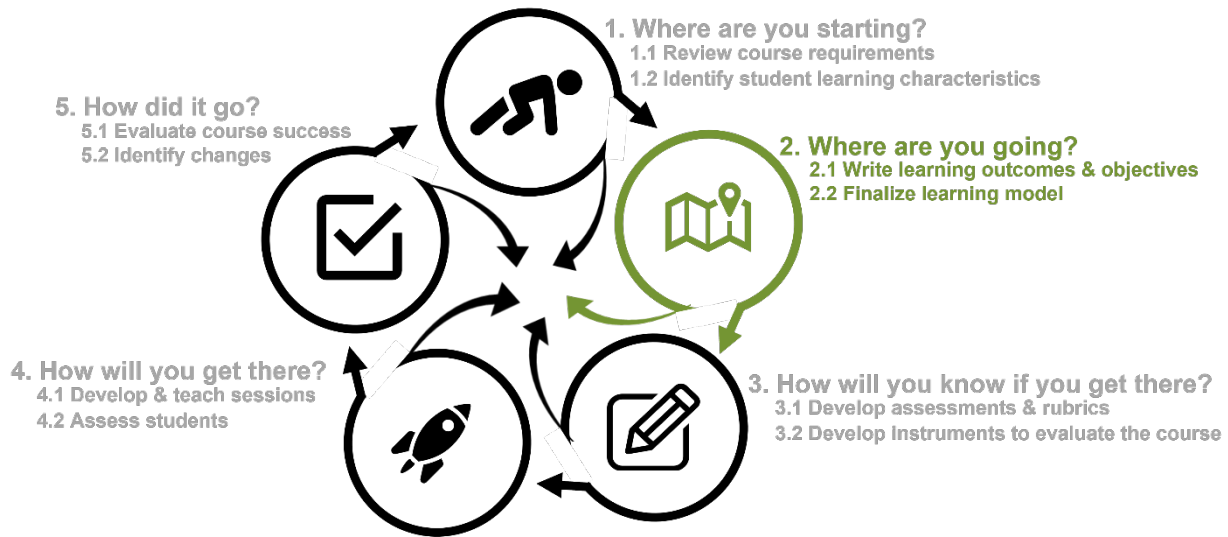




Course Design for HE Instructors: A Workbook Applying Theories, Principles, & Practices W. The IDI Workbook Step 2: Where Are You Going?

2.1 Write Learning Outcomes & Objectives



Before starting most journeys, you want to identify where you will end up. In HE courses, identifying what you want your students to be able to do by the end of the course will help you and your students stay focused on the important elements. In this chapter, you will identify outcomes and objectives.

Contents

Overview (Why)	2
Alignment.....	2
Results (What)	2
Outcomes vs Objectives.....	2
Sequence of instruction	3
Prerequisite skills	3
Suggestions/Instructions (How & What If)	3
Identify general goals and outcomes.....	3
Write outcomes and objectives	4
Finalize outcomes & objectives & prerequisites.....	4
Sequence.....	4
Draft syllabus	4
Worksheets in This Step.....	5
References	6

2.1 Write Learning Outcomes & Objectives

Results (What)

- A sequenced, written list of outcomes for your course
- Objectives formatted to meet SMART and Mager (1997) recommendations (Chapter C2)
- Alignment of outcomes and objectives to Bloom's taxonomies
- Identify all Skills, Knowledge, and Attitudes (SKAs) needed for each outcome (use this to help identify and group objectives and ensure completeness)
- Comparison of outcomes and objectives to ensure complete



Overview (Why)

For the purposes of course design, we define a learning outcome as an overarching goal. Learning outcomes are your goals for what your students will learn by the end of the course. They are broad statements, rather than specific. Learning outcomes should not be focused on what content you need to cover, but instead on what the students need to learn. In addition to ensuring you have all the content you need, writing your learning outcomes will help you align the sequence of instruction, assessment instruments, learning model, and instruction for your course.

You may identify outcomes based on:

- Previous course and teaching evaluations (identified on Worksheet 1.1),
- The course requirements (identified on Worksheet 1.1),
- AAC&U's Goals of Liberal Education, Fink's Significant Learning categories and the Angelo & Cross Teaching Goals Inventory,
- Threshold concepts and schemas, metacognitive concepts,
- Inclusivity concerns,
- Epistemological needs and/or
- Other personal goals.

Alignment

As an instructor, you want to make sure that your assessments (tests, quizzes, assignments...) measure students' abilities to meet your course goals. One of the most important methods for this is to determine for each outcome and objective the appropriate taxonomy and level.

Once you know the type of outcome and objective, you can select assessments which align to them. Bloom's Taxonomies are discussed in detail in Chapter A6. See table 1 for a summary.

The cognitive taxonomy has a second dimension: the knowledge dimension, differentiating between concrete and abstract knowledge. This includes Factual Knowledge, Conceptual Knowledge, Procedural Knowledge, and Meta-Cognitive Knowledge (Anderson et al., 2013). Identifying the knowledge dimension can further help align objectives to outcomes. This is discussed in more detail in Chapter A6.

Table 1: Bloom's Taxonomies Summary

Cognitive (Knowledge)						Affective (Attitude)					Psychomotor (Skills)				
Remember	Understand	Apply	Analyze	Evaluate	Create	Receiving Phenomena	Responds to Phenomena	Valuing	Organization	Internalizes Values	Imitation	Manipulation	Precision	Articulation	Naturalization
LOTS ← → HOTS						LOAS ← → HOAS					HOPS ← → LOPS				

Outcomes vs Objectives

For the purposes of IDI course design, we define a learning outcome as an overarching goal. Your institute and/or accreditation agency may refer to these differently. For details on writing outcomes and objectives, see Chapter C2: Learning Goals, Outcomes, & Objectives.

Each **outcome** will have multiple objectives - lower-level goals. According to Mager (1997, p.13), An **objective** is a description of a performance you want learners to be able to exhibit before you consider them competent.

Objectives should meet both SMART and Mager formatting. Worksheet 2.1b may help you with this.

Sequence of instruction

You can organize your course in a variety of sequences. You may decide to move from simple to complex, general topics to specific, or specific to general, etc. However, by considering the learners' starting points (Worksheet 1.2), you may determine a different sequence is needed (For more on this see Chapter C2, Section "Sequencing outcomes and objectives"). You may also identify that some students may be missing prerequisite skills needed for your objectives.

Prerequisite skills

Some outcomes and objectives may require prerequisite SKAs. For example, before a student can check blood pressure, the student must be able to properly use a sphygmomanometer, explain the difference between systolic and diastolic results, properly use a stethoscope... And each of these may have prerequisites as well. SKAs may be grouped into objectives.

As you review your objectives, try to identify the prerequisite SKAs. From this list, determine which you may need to include, which you may need to provide in a tutorial or optional reading, and which you can assume your students already have learned, etc. You may want to create a questionnaire for the first class session to identify current skill levels.

Suggestions/Instructions (How & What If)

The following suggestions are grouped into the following:

- Identify general goals and outcomes
- Write outcomes and objectives
- Finalize outcomes & objectives & prerequisites
- Sequence
- Draft syllabus

Identify general goals and outcomes

1. Review the course and program goals to ensure that you clearly understand what you need to include in your course (Chickering & Gamson, 1987; Hattie, 2011, p. 137). **(B2)**
2. Based upon your student demographics & expected experience, experience teaching, and course goals, determine what other outcomes you have for your course such as TCs, transformative outcomes, metacognition, etc. **(A2, A3, A4, B1, A6, C2)**

Write outcomes and objectives

1. Write your learning outcomes using worksheet 2.1a. **(A3, A6)**
2. Break your learning outcomes into SMART objectives (CAST, 2018) using the format in worksheet 2.1b. **(A6, B1, C2)**
3. Identify the levels on Bloom's Taxonomies for each outcome and objective. **(A6, C2)**
4. If you have identified that you will incorporate TCs, transformative learning, metacognition or inclusivity for transformation outcomes into your course, evaluate these against students' epistemological frame to determine if you need extra outcomes or objectives. **(A2, A3, A6, A7, A4, A5)**
5. Determine possible ways to measure achievement of each TC and transformative outcome including motivational outcomes and level of competence needed. **(A2, A3, A6, A9, A10, A5, B3, B3, C2)**
6. Think about the level of confidence and competence students will need in order to apply what you are teaching them. **(A6, A9, C2)**

Finalize outcomes & objectives & prerequisites

1. Identify prerequisite knowledge based on your learning outcomes & objectives. **(A6, C2)**
2. Review your student demographics to determine likelihood that students have the prerequisite knowledge. **(C7)**
3. Based on what you expect as current student knowledge, determine what additional outcomes and objectives might be needed. **(C7, A6)**
4. Review your outcomes for which will require active learning and which can benefit from active learning (Chickering & Gamson, 1987). **(B2, A6)**
5. Consider allowing students to define their own individual standard of performance. **(B1, A6)**
6. Review your outcomes for which will require active learning and which can benefit from active learning (Chickering & Gamson, 1987). **(B2, A6)**

Sequence

1. "Chunk course content into logical units composed of smaller segments" (*Information Overload: Executive Function & Cognitive Load*, n.d.).
2. Shibli & West (2018) suggest sequencing the delivery so that sub-tasks are taught individually before being explained together as a whole. **(A8, A6)**
3. Based on pre-requisite courses and student learning characteristics, identify methods for attaching new learning to current schemas **(A2)**
4. Start with the known and help students add new knowledge, skills, or attitudes. This supports moving the new learning from working memory to long-term memory. **(A2, A9)**

Draft syllabus

1. Locate a copy of your institution's syllabus. If none is available:
 - a. Contact your TLC for suggestions
 - b. Review the [Chronicle of Higher Education guide](#) by Gannon (2018)
 - c. Review Chapter **C3**
 - d. Google 'syllabus templates'

- e. Do NOT use a Word-provided syllabus template as they are difficult to manage unless you have great Word skills
2. Please note that your organization may have a statement about diversity that must be included in your syllabus. **(B3)**
3. At the top, give your students your preferred name and pronouns. **(B3, B2)**
4. As part of your syllabus, include how students can contact you (Chickering & Gamson, 1987). **(B2)**
5. Add a statement about contacting you if they feel confused or overwhelmed. **(A11)**
6. Consider extraneous load when making your PC and smart phone policies and add this to your syllabus. **(A8)**
7. Consider adding information about a class discussion group for students to post questions so you and other students can provide answers to everyone (Chickering & Gamson, 1987; Hattie, 2011). **(B2)**
8. “Create a course syllabus that makes your expectations, course structure, requirements for success, and student responsibilities crystal clear” (McGuire & McGuire, 2015, p. 171). **(A4)**
9. Include a statement about the value of diversity in groups (Arkoudis et al., 2013, p. 230). **(A5)**
10. Consider setting ‘class rules for interaction’, including group work interaction (Chickering & Gamson, 1987; Hattie, 2011). **(B2, B3, C11)**
11. Include a statement about an expectation of respect and consideration for all perspectives and experiences (Booker & Campbell-Whatley, 2018, p. 16; Sheridan Center for Teaching and Learning, 2020). For examples, see [Office of Teaching Effectiveness and Innovation](#), (Clemson University, n.d.).
12. Arkoudis et al. (2013, p.230) recommend key strategies: setting clear expectations for interaction, respecting diverse perspectives. **(B3)**
13. If using self-regulated learning or learning contracts, provide checklists and regular check-in dates (Hargis, 2020). **(B2)**
14. Consider providing groupwork resources for students in the syllabus.
15. Develop a graphical version of your syllabus (Quality Learning and Teaching, 2020). **(B3)**
16. Review the Universal Design for Learning: A Rubric for Evaluating Your Course Syllabus for design considerations (EnACT~PTD, n.d.). **(C3)**
17. Use Worksheet 2.1e - Syllabus checklist. **(C3)**

Worksheets in This Step

2.1a – Outcomes

Use this form to group items into topics (potential outcomes) and sub-topics (potential objectives) and draft the sequence.

2.1b – Measurable Objective Format

To ensure your objectives are SMART (specific, measurable, achievable, realistic, and time-based), complete this form for each.

2.1c – Outcomes to Objectives

Use if you want to summarize your outcomes and objectives.

2.1d – SKA Identification

If you are having trouble identifying the objectives for an outcome, use this form for each outcome, identify the skills, knowledge and attitudes required to demonstrate the outcome and the needed competency level. You may want to list these or create a mind-map.

2.1e – Syllabus Checklist

Use this form to check your syllabus for completeness.

References

- Anderson, L. W., Krathwohl, D. R., Airasian, P. W., Cruikshank, K. A., Mayer, R. E., Pintrich, P. R., Raths, J., & Wittrock, M. C. (2013). *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives* (Abridged, International). Pearson.
- Arkoudis, S., Watty, K., Baik, C., Yu, X., Borland, H., Chang, S., Lang, I., Lang, J., & Pearce, A. (2013). Finding common ground: Enhancing interaction between domestic and international students in higher education. *Teaching in Higher Education, 18*(3), 222–235.
<https://doi.org/10.1080/13562517.2012.719156>
- Booker, K. C., & Campbell-Whatley, G. D. (2018). How Faculty Create Learning Environments for Diversity and Inclusion. *InSight: A Journal of Scholarly Teaching, 13*, 14–27.
- CAST. (2018). *Universal Design for Learning Guidelines version 2.2*. <http://udlguidelines.cast.org/>
- Chickering, A. W., & Gamson, Z. F. (1987). Seven Principles for Good Practice in Undergraduate Education. *AAHE Bulletin*. <https://eric.ed.gov/?id=ED282491>
- EnACT~PTD. (n.d.). *Universal Design for Learning: A Rubric for Evaluating Your Course Syllabus*. EnACT~PTD. <https://enact.sonoma.edu/c.php?g=789377&p=5650618>
- Gannon, K. (2018, September 12). How to Create a Syllabus. *The Chronicle of Higher Education*. <https://www.chronicle.com/article/how-to-create-a-syllabus/>
- Hargis, J. (2020). What is Effective Online Teaching and Learning in Higher Education. *Academia Letters*. https://www.academia.edu/44519947/What_is_Effective_Online_Teaching_and_Learning_in_Higher_Education
- Hattie, J. (2011). Which strategies best enhance teaching and learning in higher education? In *Empirical research in teaching and learning: Contributions from social psychology*. (pp. 130–142). Wiley-Blackwell. <https://doi.org/10.1002/9781444395341.ch8>
- Information Overload: Executive Function & Cognitive Load*. (n.d.). University of Maine at Augusta. Retrieved July 22, 2020, from <https://mycampus.maine.edu/web/uc-faculty-portal/information-overload>
- Mager, R. F. (1997). *Preparing Instructional Objectives: A Critical Tool in the Development of Effective Instruction* (3 edition). Center for Effective Performance.
- McGuire, S. Y., & McGuire, S. (2015). *Teach students how to learn: Strategies you can incorporate into any course to improve student metacognition, study skills, and motivation* (First edition). Stylus Publishing, LLC.
- Office of Teaching Effectiveness and Innovation, Clemson University. (n.d.). *Diversity & Inclusion Syllabus Statements*. Office of Teaching Effectiveness and Innovation, Clemson University. Retrieved September 30, 2020, from <https://www.clemson.edu/otei/resources/review-of-teaching.html>

Quality Learning and Teaching. (2020, January 24). *LibGuides: UDL-Universe: A Comprehensive Faculty Development Guide: UDL Syllabus Rubric*. UDL-Universe: A Comprehensive Faculty Development Guide: Home. <https://enact.sonoma.edu/c.php?g=789377&p=5650618>

Sheridan Center for Teaching and Learning. (2020). Effective Teaching Is Anti-Racist Teaching. *Sheridan Center for Teaching and Learning, Brown University, 1812*. <https://www.brown.edu/sheridan/teaching-learning-resources/inclusive-teaching/effective-teaching-anti-racist-teaching>

Shibli, D., & West, R. (2018, February 22). Cognitive Load Theory and its application in the classroom. *Impact.Chartered.College*. <https://impact.chartered.college/article/shibli-cognitive-load-theory-classroom/>

Useful Links

[Contact Us](#)

[Appendices, References, & Indices](#)

Copying and Using Material from This Site

Please note that some material may hold a copyright or creative commons license by others listed in the references.

The Course Design for HE Instructors: A Workbook Applying Theories, Principles, and Practices holds a Creative Commons license. If you use all or part of this material, we ask that you provide an attribution, do not use the material for commercial purposes, and share back any changes, additions, and/or deletions you make.



Attribution-NonCommercial-ShareAlike 4.0 International

Attribution:

Reid, P. (2023). Course Design for HE Instructors: A Workbook Applying Theories, Principles, and Practices. Creative Commons: BY/NC/SA. <https://designgrp.online/>.

If you would like support in customizing this material or creating your course, please [contact us](#).