  
EPD Course Design Map

Part I: Course Information

Program Director:  
Instructor:  
Course Number:  
Course Title:

Total Contact Hours:  
(# of hours a learner will engage)

Level of Course:   
(Basic, Intermediate Advanced, Graduate, etc.)

Part II: Course Goals

Write 3 - 5 course-level goals to target the key concepts you want learners to know or be able to do after completing the course.  
These are the broad goals and should be the driving force behind all of your course-design decisions. To help you write them, consider this scenario: Imagine you bump into a student five years from now, what big ideas or skills would you want them to remember?

Example: Upon completion of this course, students will know how to balance air and water systems to achieve energy efficiency and comfort.

Part III: Course Design Map *Template*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Title of Unit** | | **Course Goal(s)** | **Learning Objective(s)** | **Assessments** | **Learning Activities &  Instructional Materials** |
|  | | | | | |
| 1 |  |  |  |  |  |
| 2 |  |  |  |  |  |
| 3 |  |  |  |  |  |
| 4 |  |  |  |  |  |
| 5 |  |  |  |  |  |
| 6 |  |  |  |  |  |
| 7 |  |  |  |  |  |
| 8 |  |  |  |  |  |
| … | Add additional rows as needed |  |  |  |  |

Part III: Course Design Map *Guidance and Examples*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Title of Unit** | | **Course Goal(s)** | **Learning Objective(s)** | **Assessments** | **Learning Activities &  Instructional Materials** |
|  | | | | | |
| **Guidance** | What is the main topic, or chunks of content, that make up the unit of learning?List the title for each.  Note­ – Topics can be organized in a variety of ways: units, modules, weeks, etc. Focus on course organization, flow, and alignment. | Which course goals will be supported by this unit?List the corresponding course-level goal(s) from Part II. | What will students be able to know or do at the end of this unit?  List 3-5 specific learning objectives. See how to [Write Learning Objectives.](https://kb.wisc.edu/engr/epd/internal/page.php?id=70280)  Note – Consider labeling the learning objectives with the level of learning:   * (L1) Remember * (L2) Comprehend * (L3) Apply * (L4) Analyze * (L5) Synthesize/Evaluate * (L6) Create | How will you know students have achieved the learning objectives?  List acceptable evidence that demonstrates students have achieved the learning objectives. Instructors can use a variety of assessments to check student learning.  Note – Options include:   * Written reflection * Report * Practical Exercise * Project Deliverable * Demonstration * Presentation * Mastery Quiz, Exam | How will students engage with the content, instructor, and/or each other to achieve the learning objectives?  List the content, resources, and activities that students will engage with in order to achieve mastery. Instructors can use a variety of materials and activities to scaffold student learning.  Note – Options include:   * Read article, book chapter, webpage * View video, recorded presentation * Discuss, debate * Solve a problem * Think-Pair-Share * Peer review * Practice quiz |
| **Example 1** | Test Instruments | Learn how to select and use appropriate test instruments. | 1. Identify test instruments. (L1)  2. Use test instruments. (L3)  3. Evaluate test instruments. (L5) | Complete Final Report | View “Test Instruments” Presentation and Demo  Participate in Instrument Lab |
| **Example 2** | Solar PV Plant Components and Overview | Understand the systems and components that comprise a PV plant | 1. List the major components of a PV system. (L1)  2. Describe how panels are connected into strings and then to inverters. (L1) 3. Outline the path for energy from PV module to a micro-grid, and sketch a PV plant’s single line diagram. (L2) | Solar PV Plant Components –Practical Exercise  Module 2 Completion Quiz | Watch “Solar PV Plant Components and Overview” Recorded Lecture Videos  Read Chapters 2 and 3 from *Fundamentals of Solar Power Design* by Ray Golden. |