



# COURSE DEVELOPMENT

Self-Paced

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## Design checklist

Included in this document is clarification on how to develop a course and the process of creating self-paced content.

| <b>Complete</b> | <b>Task</b>        | <b>Date</b> |
|-----------------|--------------------|-------------|
|                 | Instructional Plan |             |
|                 | Module Design      |             |
|                 | Design             |             |
|                 | Design Document    |             |
|                 | Storyboard         |             |
|                 | Self-Paced Project |             |

## Training Types

Training delivery for this organization comes in the course types we will consider are:

- **Self-Paced (sp)**
- **Instructor Led Online (ILO)**
- **Instructor Led in the Classroom (ILC)**

Here are some guidelines to think about when considering the different types of development.

| <b>Self-Paced Training</b>   |
|--|
| <ul style="list-style-type: none"><li>• The information is stable and will not change over the next 12 months</li></ul>  |
| <ul style="list-style-type: none"><li>• The audience is widely distributed</li></ul>   |
| <ul style="list-style-type: none"><li>• The training will be repeated often – a lot of people will need to take it, generally more than 100 people need to complete the module</li></ul> |
| <ul style="list-style-type: none"><li>• The training length is short</li></ul>   |

| <b>Instructor Led Online (ILO)</b>  |
|---|
| <ul style="list-style-type: none"><li>• Interaction with the trainer or between participants is important</li></ul>               |
| <ul style="list-style-type: none"><li>• A guided discussion would lead to a better understanding of the course material</li></ul> |
| <ul style="list-style-type: none"><li>• Immediate or time sensitive feedback is required</li></ul>                                |
| <ul style="list-style-type: none"><li>• The content is complex</li></ul>  |
| <ul style="list-style-type: none"><li>• The content will change over the next 6-12 months</li></ul>                               |

| <b>Instructor Led in the Classroom (ILC)</b>  |
|---|
| <ul style="list-style-type: none"><li>• The skills need to be mastered on a specific system</li></ul> |

|   |
|---|
| <ul style="list-style-type: none"><li>• Monitored practice is necessary to ensure learners understand how to perform a task</li></ul> |
| <ul style="list-style-type: none"><li>• There a qualified SME to teach and monitor tasks</li></ul>                                    |
| <ul style="list-style-type: none"><li>• The proper equipment is available for training</li></ul>                                      |
| <ul style="list-style-type: none"><li>• Control over the training outcome required</li></ul>  |
| <ul style="list-style-type: none"><li>• Learner motivation is directly tied to instructor guidance</li></ul>                          |
| <ul style="list-style-type: none"><li>• Learners need to be able to learn from their peers</li></ul>                                  |
| <ul style="list-style-type: none"><li>• Learners need to be in a simulated stress environment</li></ul>                               |

## Creating an Instructional Plan

Once you have developed your objectives, found content, and determined the delivery method, you need to develop an instructional plan. An instructional plan provides an outline for the course. There are three steps to this process; these are course mapping, outlining, and course sequencing.

### Course Maps and Outlining

According to Piskurich (2015), “A course map breaks a course into distinct units of finished training with introductions, activities, reviews, tests, and so forth.” You may have noticed, when developing a curriculum, content needs to be broken into logically grouped modules. Each module should contain a separate learning event covering a specific piece of the overall puzzle that will ultimately become your course. Here are some general guidelines:

- A module should not have more than one distinct learning outcome. However, the learning outcome can be made up of several unique objectives
- A module should be able to stand on its own as a separate teaching event

Once you have an idea of which modules you are going to create you will need to develop the following parts for each:

- **Pre-Instructional Activities:** Before a learner arrives at the training event what should they already know? If a prior course is required make sure you are aware of what is taught in that course to ensure you are not repeating information.

- **Introduction:** This will explain to the learner what they are going to be studying in this module. It should contain all of the primary and secondary objectives and a brief statement about how the objectives are going to be taught.
- **Information to be presented:** This will be the bulk of the training event and will need to be outlined in a logical format, what should be done first, second, third, etc.
- **Learner Activities:** Once the transfer of knowledge has occurred what do you want the learner to do with the information? In some cases these will be the labs you are going to be performing in the class.
- **Learning Assessment:** Each objective (which forms the bulwark of your module) needs to be observable and measurable. When designing the learning assessment, you will need to keep in mind how you plan to assess each learner for competency. If this cannot be done the objective and the information needs to be removed, or regrouped in your module.

## Course Sequencing

After you have mapped each module you will need to create an outline of the information to be presented. This is called course sequencing, or, more simply, “How do I get from point A to point B.” There are many ways to sequence but each follows one of the five ways described below as described by Piskurich (2015):

1. General to Specific: “Start with an overview and present the whole, then break it up into its component parts.”
2. Simple to Complex: “Start with the simplest tasks and work your way up to multi-task complexity.” In most cases, you will probably want to combine tasks to not repeat them during the training event.
3. Time Sequence: “This is what you do first, second, and so on.” In many cases this will be how you sequence your labs and how they are to be accomplished in the lab.
4. Known to Unknown: “Start with what you know the trainees understand and use this as a base to move into what they do not know.” As a rule, this type of development will require a good handle on course pre-requisites.
5. Problem-Solution: “Start with a problem and arrange your content to come to a solution.” This form of sequencing is most effective in the higher-level courses where you will be asking learners to solve problems or create a design based on a scenario.

We use Power Point media as a tool for developing the course sequence. Once you have completed the objectives, course mapping, and sequencing of your class you will have a good outline of the curricula you are creating. At this point you will focus on the inserting the knowledge components into each module and “flesh out” the class you are developing.

## Module/Component Design

In this section, we will cover how to put together different modules. This will help you when creating your design document.

### Module Objectives

In this section, you will learn module design. We will be focusing on the following objectives:

- Distinguish the difference between the module types
- Describe module/component flow
- Define the objective type to be written for each module
- Describe types of objectives that need to be written for each module type
- State the standardized items within each module type
- Recognize the recommended skill assessment for each module type
- Recognize the recommended course map for each module type
- Recognize the recommended delivery system for each module type
- Describe the software available to develop each module type
- Use the components to create modules for ShoreTel University

## Design

When thinking about module creation approach it from an “at least” perspective. For example, if you are developing a module that requires some sort of demonstration of skill application you need to “at least” develop to the module standards for an Application Module. This does not mean that you cannot have lower level knowledge objectives, but it does mean that “at least” one module will require a higher order application demonstration.

## Module/Component Flow

To create the most engaging type of learning for adults it is important to change how the learner will interact with the information. Each learner works differently, assimilates information differently, it is important to consider how your audience learns when planning the module flow. The modules we will focus on here are Overview and Knowledge based

## Overview Module

An Overview Module is the first module written for either an academy or as the first component for a stand-alone module in an academy. The length of an overview module should be no longer than five minutes.

### Purpose

To provide an overview of what will be covered in the module/academy.

### Type of Objective to be written

Lowest level of objective in Bloom’s Taxonomy: **Remember**

### Standardized Items

- The audience for whom it is intended (academy overviews only)
- Brief introduction of the entire academy/module “what will be covered” and “what you will be required to know/do/create.”
- Primary level objective
- Safe Harbor Statement
- WIIFM (What’s in it for me)
- Resources/links to outside information (knowledge base, marketing, partner portal, etc.)

### Recommended Assessment

None

### Recommended Course Map

Time Sequence

### Recommended Delivery System

Self-Paced, with a video of the instructor and transition to the instructor’s avatar that they will be using for the remainder of the module/academy/course.

### Equipment/Software Recommended

Video

Voice over power point

### Module Component Flow

1. Logo start screen
2. Safe harbor statement
3. (optional—may not be required for all modules) Welcome video from instructor with transition to their avatar
4. Module/academy primary level objectives
5. WIIFM statement
6. Resources/links

## Knowledge Module

A Knowledge Module/Component is what in the past may have been termed a “lecture module.” The goal is to explain new information at a low level and check to ensure learners have retained the information.

It is the ability to grasp the meaning of the material or recall memorized information. It may involve remembering a wide range of material from specific facts to complete theories. All that is required is the ability to bring to mind the appropriate information.

The length of a knowledge module/component can be as short as 5 minutes but should be no longer than one hour.

### Purpose

To expose learners to new information and test their ability to retain it.

### Type of Objective to be written

Lower level of objective in Bloom’s Taxonomy: **Remember and Understand**

### Standardized Items

- Objectives
- Module specific TLAs (Three Letter Acronyms)
- Knowledge checks

### Recommended Assessment

In module knowledge checks

### Recommended Course Map

General to Specific or Time Sequence

### Recommended Delivery System

Self-Paced, with a video of the instructor and transition to the instructor's avatar that they will be using for the remainder of the module/academy/course.

### Equipment/Software Recommended

- Demo Video
- Voice over power point
- Camtasia—for software
- Captivate—knowledge checks
- Studio

### Module Component Flow

For each of the interactions below change the type of interaction (video, Voice over power point, Camtasia software demo, etc.) for each objective. All knowledge checks will be done through Captivate software.

1. Logo start screen
2. Objective slide with avatar and voice over
3. Objective #1 interaction
4. Objective #1 knowledge check
5. Objective #2 interaction
6. Objective #2 knowledge check
7. Objective #X interaction
8. Objective #X knowledge check
9. Summary Knowledge check

### Module/Component Flow

For each of the interactions below change the type of interaction (video, Voice over power point, Camtasia software demo, etc.) for each objective. All knowledge checks will be done through an approved authoring tool (Storyline or Captivate)

1. Logo start screen
2. Objective slide with avatar and voice over
3. Scenario/Problem Setup
4. Advanced Lecture—Cover anything that may have been missed, short as possible
5. Task application performance
6. Summary slide with avatar and voice over (in SP only)

## Design Document

The design document can be considered the outline for the module/course. This is done prior to any storyboard being written. This document is the primary communication mechanism between SME, Developer, Designer and Shareholders.

Completing this document correctly should tell you:

- What module/course type you are creating
- What is the course sequence
- The outline of the module/course
- What are the testable objectives
- What type of assessment is needed (exam, skill assessment)
- What exam questions you need to create

Once you have thought through all the above sections you will want to input the ideas onto the design document.

## Design Document Components

Here are the components:

| Day | Module               | ShoreTel Multi Cell DECT                 | Performance Objective  | Method Code | Exercise/Lab Time Required | Lecture Time Required | Notes |
|-----|----------------------|--|--|-------------|----------------------------|-----------------------|-------|
|     | Pre req              | Assumed Knowledge                        | The student has a good understanding of ShoreTel Product and Solutions and should have completed Fundamentals Course and Products course |             |                            |                       |       |
|     |                      |  | At the end of this Module, The Student will be able to:-   |             |                            |                       |       |
|     |                      | <b>OVERALL LEARNING MODULE OBJECTIVE</b> | <b>At the end of this Module, The Student will be able to:-</b>  |             |                            |                       |       |
|     |                      |  | <b>Describe the ShoreTel Multi Cell DECT range and define a valid DECT Solution for any given customer scenario</b>                      |             |                            |                       |       |
|     |                      |  |  |             |                            |                       |       |
| 1   | Introduction to DECT |  | Recognise the right circumstances to deploy DECT   |             |                            | 10                    |       |
|     |                      | What is it?                              |  |             |                            |                       |       |
|     |                      | Why do we use it?                        |  |             |                            |                       |       |
|     |                      | Where is it best deployed                |  |             |                            |                       |       |
|     |                      | Where can I sell ShoreTel DECT           |  |             |                            |                       |       |
|     |                      | The DECT Market                          |  |             |                            |                       |       |

- Day: What day will this take place on? Day 1 of the training, day 2 etc. For most short classes, there will only be a “Day 1.”
- Module Pre-req: This allows the developer to understand how this fits into a larger scheme and is important from the perspective of building academies. List the pre-req module by course # obtained from the curriculum development group
- Performance Objective:
- Method Code: How are you going to prove that the objective has been covered?
  - PW = performed written, i.e. an exam
  - P1 = complete individually (Skill Assessment)
  - P2 = complete as a member of a team (Skill Assessment)
  - D = demonstrate only (Skill Assessment)
  - NA = Not Applicable
- Exercise/Lab Time: how long, hours, will the lab for this objective take to complete
- Lecture Time: How long, in hours, will the lecture take
- Notes: place to put KB links, repurpose slides from another deck. References to technical guides, links to partner site and etc.

## The Storyboard

Storyboards are the blueprints for your course. You can use them to work out the details of the content, get approval from stakeholders before assembly begins and provide direction to developers, artists and other team members on how to build the course to your specifications.

The storyboard we will use is created in Power Point with the notes section filled in at the bottom providing the text go along with the pictures you are supplying. However, if there is not a picture, or you need one created, please include it as a comment in the Power Point. This will inform the developer that, during your subsequent meeting, you will need to talk about this.

### Storyboard Requirements

When developing a storyboard as a SME/developer here is what you are required to provide and requested NOT to provide:

- Required:
  - Block diagrams (for example in a design class)
  - Bulleted main points
  - Overall main idea of slide
  - A fully completed notes section (see below)
  - Include references to all source docs and hand over soft copies of all source docs where possible
  - If the course is a simulation a step by step procedure to understand the flow of the slide will be required
- Not Required (nor recommended):
  - SME created graphics
  - Animated slides
  - Voice over scripts

### Storyboard Creation Process

A storyboard is developed according to the following process:

1. There is a storyboard developed for each module. The module will be named according to the proper course naming convention received from the Curriculum Development Group
2. The first slide of the Power Point will list the name of the module in the heading and the date it was developed in the subheading.
3. The second slide will list the module secondary objectives
4. The middle slides will contain all the information you wish to cover to teach the objectives. This will follow the course map and sequencing you completed earlier in the pre-development stages. Here are some tips for development.
  - a. As you develop the slides and drive down into the details of the components make sure you re-orient the learner to the larger picture prior to moving onto another detail section. Normally this should be done as you move from objective to objective.
5. The next slide should contain a summary slide listing the module objectives. This will allow the instructor to ask the learners questions based upon what has just been covered and ensure they understand all the components covered.
6. The final series of slides should contain the module review questions (if any, and those which can be turned into an exercise inside the module.)

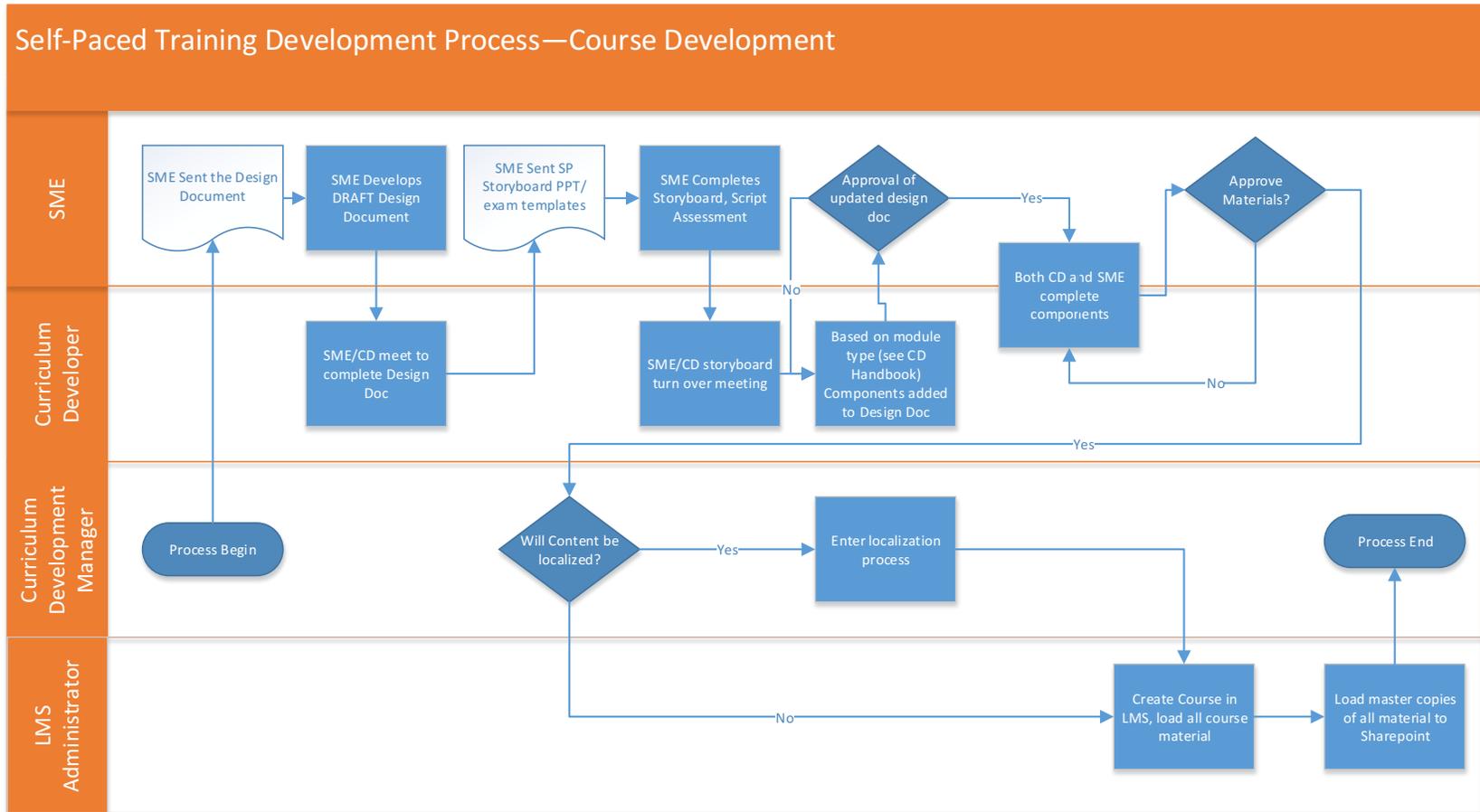
### Primary Components of a Storyboard

Now that you understand the process here are the primary components of a storyboard:

- The display section (What is shown on the screen):
  - A picture of the object being covered with all the relevant section being pointed out
  - The name of the component
- Notes Section:
- First or Title Slide

- Provides directions to the developer. How does the course need to look or function?
- What is the module/component design?
- What is the course sequence?
- What is the module's primary objective?
- Following slides
  - The objective being covered by number and name.
  - The script of what is being covered.
  - Does the slide need animation? If so what are your recommendations?
  - The source document for the slide. Where is it from? Include the source document in the hand off to the curriculum developer, or, a link to the document.
  - A multiple choice question based upon the objective being covered, its distracters and the correct answer. This will be done to facilitate the creation of exams and for use in an online environment.

# Self-Paced Training Development Process



Process Begin

### Step Owner: Curriculum Development Manager

The curriculum manager has been made aware that there is a course/module has been requested to be developed. The manager has added development to their project plan. This includes both new course design and revision.

SME Sent the Design Document

### Step Owner: Curriculum Development Manager

The curriculum manager has assigned a resource from his group. The CD (Curriculum Developer) has been informed and has sent the Design Document (either new or existing) to the SME.

SME Develops DRAFT Design Document

### Step Owner: Subject Matter Expert

The SME (Subject Matter Expert, usually ShoreTel University personnel) has received the design document and completes the draft of the document. The SME will leverage the Curriculum Development Handbook to develop the components.

SME/CD meet to  
complete Design  
Doc

### Step Owner: Curriculum Developer

The SME and CD meet to discuss the document and finalize its content. Ensure all the components of the document has been completed correctly according to the requirements in the Curriculum Development Handbook.

SME Sent ILT  
Storyboard PPT/  
exam templates

### Step Owner: Curriculum Developer

The CD obtained course documents and has sent them to the SME.

SME Completes  
Storyboard, Script  
Assessment

### Step Owner: Subject Matter Expert

The SME writes the draft assessment for the module/course. This can include:

- Draft exam
- Draft knowledge checks
- Draft lab instructions
- Draft/explanation of in-course assessment that needs to be created by the CD

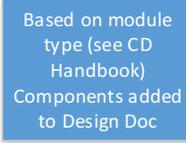
Using the; draft assessment, Curriculum Development Handbook, and CD templates, the SME completes the storyboard, assessment and spoken script.



SME/CD storyboard  
turn over meeting

### **Step Owner: Curriculum Developer**

Official turn over meeting from the SME to the CD. The SME will explain the course flow, training etc. based on requirements in the Curriculum Development Handbook. The SME and CD need to agree on the hand off and that the CD understands the instructions for development from the SME.



Based on module  
type (see CD  
Handbook)  
Components added  
to Design Doc

### **Step Owner: Curriculum Developer**

Based on the turn over meeting the CD will add in the elements into the design document. This will act as the “shooting script” for the self-paced course. It might include; where to have video, where to use the avatar, knowledge checks, animations etc.



### Step Owner: Subject Matter Expert

The SME will be sent the updated design document with all the shooting elements created in the updated design document the SME will either approve it, sending it on to the next step or it will be sent back to the CD for revision.



### Step Owner: Subject Matter Expert and Curriculum Developer

Based on the approved shooting script the SME and CD will develop the components of the module/course.



### Step Owner: SME

Based on the materials meeting the SME will either approve the materials produced by the CD or send them back to the CD for changes.



**Step Owner: Curriculum Manager**

A determination will be made by the CM whether or not to send the material into the localization process. If “yes” then go to localization process. If “no” then skip to load step.



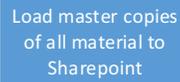
**Step Owner: Curriculum Manager**

If the decision was made to localize the course. Go to localization process contained in the Curriculum Development Handbook.



**Step Owner: LMS Administrator**

The course is loaded to the LMS and made available for scheduling.



Load master copies  
of all material to  
Sharepoint

### **Step Owner: LMS Administrator**

All the finalized material become the “official” copies and are loaded onto the Share Point site. If it is a revision then it replaces the existing material.



Process End

### **Step Owner: Curriculum Manager**

The LMS Administrator informs the CM that the course is complete and has been made available for scheduling. The CM closes the project and informs appropriate training manager it is complete

## References

Piskurich, G. M. (2015). Rapid instructional design: Learning ID fast and right. John Wiley & Sons.