Designing your course structure

Clearly define your learning outcomes

The best place to start designing an online course is no different from any other form of learning design. Set your learning outcomes early and plan your course so that each step gets the learners closer to the outcomes.

Write a set of clearly defined outcomes to communicate to the learners:

By the end of this course, you will be able to…

The list below, created by the Professional Development Team in ALS, are a useful guide in helping you to write clearly defined learning outcomes for a course:

**Action words to start your learning outcomes with:**

<table>
<thead>
<tr>
<th>Agree</th>
<th>Derive</th>
<th>List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analyse</td>
<td>Develop</td>
<td>Plan</td>
</tr>
<tr>
<td>Apply</td>
<td>Discuss</td>
<td>Practice</td>
</tr>
<tr>
<td>Carry out</td>
<td>Elicit</td>
<td>Present</td>
</tr>
<tr>
<td>Change</td>
<td>Establish</td>
<td>Produce</td>
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<tr>
<td>Choose</td>
<td>Evaluate</td>
<td>Recognise</td>
</tr>
<tr>
<td>Commit</td>
<td>Exercise</td>
<td>Report</td>
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<tr>
<td>Create</td>
<td>Explain</td>
<td>Risk assess</td>
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<tr>
<td>Demonstrate</td>
<td>Explore</td>
<td>Share</td>
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<tr>
<td>Describe</td>
<td>Generate</td>
<td>Transform</td>
</tr>
<tr>
<td>Design</td>
<td>Identify</td>
<td>Turn</td>
</tr>
<tr>
<td>Detail</td>
<td>Introduce</td>
<td>Use</td>
</tr>
</tbody>
</table>

Design around a learning objective

If one or more of your learning objectives can be translated into friendly and accessible language, then designing a course around one or more **learning objectives** can give a focus to your course. Like this one for *Choosing Which Treatments get Funded*:

This course will give you the story behind the headlines. And you’ll be able to answer the question: how do healthcare systems make decisions about funding new treatments?
In some cases, turning the main learning objective into a ‘big question’ offers a learner-centred way to assess its effectiveness; by asking learners at the end to give their answers to the question.

If your course is open-access and you want to attract a large audience to the course, it can also provide an effective way to market the course and entice people to join.

For example:

“Where is my flying car?”
*This example was used in the open online course ‘Building a Future With Robots’ and helped learners start to think about how much or how little robotics had advanced compared to expectations in popular fictional films that depicted the future*

“How will we live in a world of 10 billion?”
*This question was pitched in promotion to students for Achieve More Level 2 and brought an accessible context to learning about collaborative research*

Try thinking up what big question your course will answer. Ask people what their answer would be now and what is the first thing that they’d want to know to be able to answer it. Does this make you want to refine the question or how refine how you’d structure the course?

**Plan the step-by-step learning journey**

Think about what concepts each week or section of the course need to cover in order to reach the learning objective.

Start to list these concepts and put them into the order that they should be presented.

**Tell a story**

If you can structure the course around a theme or a story, you can help to put the learning into context at the same time as helping to keep the learner engaged.

…a certain very specific syntactic shape (beginning-middle-end or situation-transformation-situation) and with a subject matter which allows for or encourages the projection of human values upon this material.

*Scholes, 1981. p. 205*

You could set up a scenario or solve a case, for example. If you set up a theme or a big question to answer, the course could follow a narrative in finding out the answer.

In *Building a Future with Robots*, we set up the question ‘Where is my Flying Car?’ then worked through each major aspect of robotics looking at the challenges that are faced in designing smart, autonomous systems. As we work through all of the
different considerations that are needed in designing robots that can make responsible decisions by themselves, we slowly come to the realisation of how difficult designing an autonomous vehicle, and therefore a flying car, can be.

Choose learning exercises that will help learners reach their objectives

Start thinking about the types of exercises to include in the course that would help the learner to understand the concepts.

We can design online courses to have a balance of content that is delivered and content that is active.

Delivered steps can help to explain a concept whilst active steps can help learners to construct their knowledge by actively participating in their learning.

FutureLearn have a useful guide showing some examples of how different online content can address learning needs:

<table>
<thead>
<tr>
<th>Learning</th>
<th>Learners…</th>
<th>FutureLearn example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivered</td>
<td>are presented with information</td>
<td>Video step</td>
</tr>
<tr>
<td>Reflective</td>
<td>reflect on activities</td>
<td>Discussion to review previous steps</td>
</tr>
<tr>
<td>Collaborative</td>
<td>construct shared understanding</td>
<td>Discussion step to explore learners’ perspectives and experiences</td>
</tr>
<tr>
<td>Conversational</td>
<td>converse with others</td>
<td>Comments linked with each step</td>
</tr>
<tr>
<td>Networked</td>
<td>interact with networks of peers</td>
<td>‘Like’ comments and ‘follow’ other learners</td>
</tr>
<tr>
<td>Browsing</td>
<td>seek and collate information</td>
<td>Use ToDo to browse the course steps</td>
</tr>
<tr>
<td>Assessing</td>
<td>learn by receiving constructive feedback</td>
<td>Peer review step</td>
</tr>
</tbody>
</table>
**Inquiry-driven**
- investigate authentic situations
  - Hadrian’s Wall course: Exercise step to investigate terrain of Hadrian’s Wall with an overlay on Google Maps

**Problem-solving**
- try to solve problems or answer big questions
  - Ebola: Symptoms, History and Origins course: What can be done to stop the spread of the virus?

**Case-based**
- investigate individual cases
  - Introduction to Forensic Science course: murder case presented by series of videos

**Simulation**
- interact with a simulated world
  - Moons course: Exercise step with a ‘virtual microscope’

**Construction**
- design and make artefacts
  - Creative Coding course: learners construct computer programs and share results

**Cross-context**
- learn across physical or social settings
  - Ecosystems course: learners use iSpot software to photograph and identify wildlife

**Game-based**
- engage with game environments
  - Moons course: Moon Trumps game

**Performative**
- present for an audience
  - Start Writing Fiction course: learners create short stories for an audience of other learners

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**Collaborate**

Once you have an outline for the key concepts, learning objectives, structure and some ideas for content, get as many people as you can to give you some input and feedback.
Creating an online course requires a lot of planning, design and thought. Online courses benefit from being created by teams of educators who each contribute a different perspective and particular expertise to the content and structure.

Who would make the ideal course team?
What areas are you covering in the course where you need particular expertise?

Get the highest value from your course

In creating an online course, the hardest work is in the planning, front-loading the work for the educators. Once courses are created, the work can be reused again and again, re-purposed and updated with minimal effort.

As you think through the concepts, consider where else they could be useful.

Are there videos that would help promote teaching excellence and help in recruitment?

Are there particular students who would benefit from working through some parts of the course to complement their studies?

Could you evidence the experience to demonstrate your professional development?

References:
Some material adapted and reworked from FutureLearn Course creation/ Pedagogy and Learning design guides for partners