### Lesson plan template - Product Design

<table>
<thead>
<tr>
<th>Unit/Course</th>
<th>Topic</th>
<th>Research &amp; Development</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area</td>
<td>Product Design</td>
</tr>
</tbody>
</table>

**NOTE: Have the activities in the lesson plan been checked against the Unit Descriptor/Objectives for the session?**

**Area**

**Product Design**

**Activity:** The aim of this activity is to ensure that the design/re-design/ development of the product specification is directly influenced by research.

**Examples of Learning Outcomes** – (see broad examples on page below, QAA/CBI links)

- Foundation students should be able to understand the principles, terms, concepts, theories and practices of product design.
- Undergraduate students (Levels 4-6) should be able to explore, evaluate and critique product design information and research (primary & secondary) and demonstrate up to date knowledge.
- Postgraduate students should be able to engage with new knowledge, practice or methods related to product design information and research in different industries.

**Transferable skills developed** – (see broad examples on page below, QAA/CBI links)

- Foundation students should be able to demonstrate the ability to apply their learning in less familiar contexts/situations.
- Undergraduate students should be able to demonstrate judgement in the selection, analysis and evaluation of information and apply to different contexts.
- Postgraduate students should be able to show critical ability in analysis, synthesis and evaluation skills.
- Generic skills: this activity has the potential to develop the CBI employability skills.

### Plan of activities – These activities be completed in a classroom and/or IT environment

<table>
<thead>
<tr>
<th>Time (in minutes)</th>
<th>Teacher Activity</th>
<th>Learner activity (What the students will do?)</th>
<th>Hand-outs, resources &amp; bookings needed</th>
</tr>
</thead>
</table>
| **Prior to session:** - Load Apprentice 1 and | Are there spare activities for those who finish early? | Are the students required to do any reading or activity before attending the session? | What hand-outs or resources are needed to be inclusive to all students?  
- Photocopy hard copies.  
- Book IT suite if needed |
| **5 mins**  
| **5 mins**  
e.g. Introduce the current topic with learning outcomes and expected developmental skills | Establish core learning outcome(s) and transferable skill developmental (see examples above) and provide learners with opportunities to reflect on them before, and after the activity. | Learners should start a journal during the session noting their awareness of the learning outcome(s) and transferable skill development before the activity commences and repeat the exercise once the activity is completed, noting any differences. | Hand out hard copies, set-up on-line or in the journal section of the simulation. Useful evidence for research purposes and learner’s awareness of their development. |
| **10 mins**  
*Break session into bite-size chunks*  
e.g. Give and/or demonstrate necessary information | Load the simulation – R & D – Product Design. | Analyse and evaluate the current product designs for the product(s) noting the product(s) attributes, components used, design time, production time, tech level and overall score. | Students own notes.  
Spare paper and pens, on-line, journal notes in the simulation. |
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<th>Time</th>
<th>Activity</th>
<th>Notes</th>
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<tr>
<td>15 mins</td>
<td><strong>Break session into bite-size chunks</strong>&lt;br&gt;e.g. Set activity to reinforce understanding</td>
<td>Scrutinize the focus group research report(s) and consider:&lt;br&gt;- What is the feedback customers are giving the company regarding the product(s) attributes and price?&lt;br&gt;- Do you know what product attributes are important to your target market?&lt;br&gt;- Does the feedback suggest that refinements to existing/new products is needed?&lt;br&gt;- Are there any changes needed in design time and production time?&lt;br&gt;Students own notes. Spare paper and pens, on-line, journal notes in the simulation.</td>
</tr>
<tr>
<td>10 mins</td>
<td><strong>Break session into bite-size chunks</strong>&lt;br&gt;e.g. Verify understanding by all students</td>
<td>Example questions that could form a discussion or reflection:&lt;br&gt;- What did you discover?&lt;br&gt;Learners respond to questions and ask further questions of the tutor. Individual/group work. Reflection and tutor/student discussion on the question(s) posed. Hand out hard copies, set-up on-line or in the journal section of the simulation. Useful evidence for research purposes and learner’s awareness of their development.</td>
</tr>
<tr>
<td>5 mins</td>
<td><strong>Spare paper and pens, on-line, journal notes</strong>&lt;br&gt;e.g. Wrap-up of learning, go over tasks and gather feedback on how the session went.</td>
<td>Re-cap learning outcomes and transferable skills developed.&lt;br&gt;Obtain anonymous feedback from students. Learners should have started a journal during the session noting their awareness of the learning outcomes and transferable skill development before the activity commences, and repeat the exercise once the activity is completed, noting any differences. Hand out hard copies, set-up on-line or in the journal section of the simulation. Useful evidence for research purposes and learner’s awareness of their development.</td>
</tr>
<tr>
<td><strong>Total time = 50 mins</strong></td>
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**Longer lesson time suggested activities**<br>Based upon the information analysed design a new product to introduce to an existing or new target market.<br>Go to R & D – Product Design – New Design. Using the information analysed and evaluated design a new production and launch it into the market place. Access to the simulation.<br>

**Longer lesson time suggested activities**<br>Conduct customer research to assess the impact of the new product design.<br>Assess the impact of the product launch on the market place. Access to the simulation.

**Preparation for next lesson**<br>Gather student feedback to incorporate into actions for the next session

**What learning took place?**

**Which aspects of lesson went well?**

**Which aspects could be improved upon?**

**Actions for the future based on feedback**
Generic Learning outcomes examples.

QAA Benchmark documents

Foundation Degree qualification benchmark May 2010


Foundation Degree Characteristics December 2014 (Draft for consultation)


Subject Benchmark Statement – Business and Management February 2015


Master’s degrees in business and management 2007

<table>
<thead>
<tr>
<th>Subject knowledge, understanding &amp; skills</th>
<th>Foundation year</th>
<th>1&lt;sup&gt;st&lt;/sup&gt; year studies</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt; year studies</th>
<th>3&lt;sup&gt;rd&lt;/sup&gt; year studies</th>
<th>Post-graduate &amp; professional studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge &amp; understanding</td>
<td>See Foundation Degree Characteristics December 2014 (Draft for consultation) - QAA statement 4.</td>
<td>See QAA Subject Benchmark Statement 3 – Business and Management February 2015: Research: the ability to analyse and evaluate a range of business data, sources of information and appropriate methodologies, which includes the need for strong digital literacy, and to use that research for evidence-based decision-making. Specifically, Operations: the management of resources and procurement.</td>
<td>Explore and evaluate information from a wide range of sources.</td>
<td>Explore and evaluate information from an extensive range of sources including primary sources.</td>
<td>Engages with a comprehensive range of new knowledge, practice or methods and generates a contribution to new knowledge.</td>
</tr>
<tr>
<td>Example of a learning outcome</td>
<td>Demonstrate an understanding of the principles, terms, concepts, theories and practices within the subject.</td>
<td>Explore and evaluate information from a wide range of sources.</td>
<td>Explore and evaluate information from an extensive range of sources including primary sources.</td>
<td>Explore and critique information from a comprehensive range of sources (primary &amp; secondary), many at the forefront of knowledge/practice.</td>
<td></td>
</tr>
<tr>
<td>Skills &amp; practice (cognitive skills)</td>
<td>See Foundation Degree Characteristics qualification benchmark QAA statement 4.</td>
<td>See QAA Subject Benchmark statements 3.7, 3.8 &amp; 3.9 – Business and Management February 2015</td>
<td>Demonstrate judgement in selection, analysis and evaluation of information and application of learning to different contexts.</td>
<td>Demonstrate critical judgement in the analysis, evaluation, synthesis and application/transformation of prior knowledge to differing contexts.</td>
<td></td>
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<td>Example of a learning outcome</td>
<td>Demonstrates ability to apply learning in less familiar contexts/situations.</td>
<td>Demonstrate judgement in selection, analysis and evaluation of information and application of learning to different contexts.</td>
<td>Demonstrate critical judgement in the analysis, evaluation, synthesis and application/transformation of prior knowledge to differing contexts.</td>
<td>Critical ability in analysis, synthesis and evaluation.</td>
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<td>Skills of particular relevance to business and management</td>
<td>See Foundation Degree Characteristics qualification benchmark QAA statement 4.</td>
<td>See QAA Subject Benchmark statements 3.7, 3.8 &amp; 3.9 – Business and Management February 2015</td>
<td>Students should be able to show consistent competence in research skills and how they are used in business.</td>
<td>Students should be able to show a high-level of competence in research skills and how they are used in business.</td>
<td>Engagement with research skills and methods and generates a contribution to new knowledge.</td>
</tr>
<tr>
<td>Example of a learning outcome</td>
<td>Demonstrates work-related and scholarly tasks.</td>
<td>Students should be able to show consistent competence in research skills and how they are used in business.</td>
<td>Students should be able to show a high-level of competence in research skills and how they are used in business.</td>
<td>Students should be able to show mastery in research skills and how they are used in business.</td>
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</tr>
<tr>
<td>Other generic skills and attributes</td>
<td>See Foundation Degree Characteristics qualification benchmark QAA statement 4.</td>
<td>See QAA Subject Benchmark statements 3.7, 3.8 &amp; 3.9 – Business and Management February 2015</td>
<td>Demonstrate excellent presentation and organisation of work with fluid communications in all contexts.</td>
<td>Demonstrate excellent presentation and organisation of work with fluid communications in all contexts.</td>
<td>Academic or professional communications confidently display advanced professional competence.</td>
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<tr>
<td>Example of a learning outcome</td>
<td>Demonstrate clear and accurate presentation of information and data.</td>
<td>Demonstrate excellent presentation and organisation of work with fluid communications in all contexts.</td>
<td>Demonstrate excellent presentation and organisation of work with fluid communications in all contexts.</td>
<td>Academic or professional communications confidently display advanced professional competence.</td>
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Example of a learning outcome

Demonstrate ability to apply learning in less familiar contexts/situations.

Demonstrate judgement in selection, analysis and evaluation of information and application of learning to different contexts.

Demonstrate critical judgement in the analysis, evaluation, synthesis and application/transformation of prior knowledge to differing contexts.

Engages with a comprehensive range of new knowledge, practice or methods and generates a contribution to new knowledge.

Critical ability in analysis, synthesis and evaluation.