

# **Product Design**

## **Extended Case Study Guidance for Advanced Higher**

**For use in National Qualifications Advanced Higher Courses in and after  
Diet 2011**

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# Introduction

This document details the assessment criteria, marking instructions and assessment conditions for the Advanced Higher Product Design Extended Case Study.

This document must be used in conjunction with the Product Design Arrangements document (second edition, Jan 2009), *Conditions and Arrangements* (published annually), and *Estimates, Absentee and Assessment Appeals: Guidance on Evidence Requirements*.

## Advanced Higher Product Design Course

The Advanced Higher Product Design Course has been designed to provide progression from Intermediate 2 and Higher Product Design Courses. The Course is set in the context of products for the marketplace which are produced by commercial design and manufacture.

In the Course, candidates look at the design process and the strategic decisions that have to be made, as well as the materials and manufacturing processes that can be used. The knowledge and understanding acquired is consolidated by undertaking practical activities. The external assessment of the Advanced Higher Product Design Course consists of:

- ◆ A Question Paper testing candidates' knowledge and understanding of the content of the Course. The duration of the examination is three hours and is allocated 100 of the 250 marks available for external assessment.
- ◆ An Extended Case Study produced in response to a problem identified by the candidate. The Extended Case Study is allocated 150 of the 250 marks available for external assessment.

## The Extended Case Study

The Extended Case Study is an assessment tool. To be successful, candidates must produce evidence that meets the assessment criteria.

The Extended Case Study is produced in response to a problem identified by the candidate. The problem may be with a product or a situation.

A suitable problem must be identified to allow the candidate to undertake meaningful design activity and generate the appropriate evidence. It is essential that it is a real problem, and that the candidate does not simply attempt a 'restyling' exercise. Identifying a problem with a part of a product is an acceptable way forward — this will allow the candidate more opportunity to demonstrate the assessable knowledge and skills than would simply restyling a complete product that has no real problems. The teacher/lecturer should provide guidance on the suitability of the problem for generating evidence for assessment.

## Conduct of assessment

The Extended Case Study must be completed under controlled conditions.

As a component of the external assessment, work produced for the Extended Case Study must be produced by candidates working independently. The work must be original material produced by candidates, so photocopies cannot be accepted and group work is not permitted. While appropriate advice and guidance may be given by the teacher/lecturer, candidates are solely responsible for producing their own Extended Case Study.

No annotations should be made on the Extended Case Study by anyone other than the candidate preparing the evidence. The Extended Case Study must remain in the centre before being sent to SQA for assessment purposes — candidates must not be allowed to remove their Extended Case Study from the centre before assessment.

Throughout the production of the Extended Case Study, candidates must be allowed to store their work securely within the centre in a manner which ensures that the material is not allowed to deteriorate or be damaged in any way.

## Structure of Extended Case Study

At this level of study, candidates are expected to present evidence of their progress in identifying a design problem through to producing a design proposal in a way that suits their skills and is clear to the reader. To accommodate differing styles and apply the assessment criteria fairly, evidence will be accepted in a range of formats. The following points are supplied for guidance.

- ◆ Evidence can be submitted in any form that meets the assessment criteria. This is likely to consist of working sketches, working notes, photographs, working drawings, models, CAG, DTP, and manually rendered graphics. Video clips recorded on DVD may also be used where appropriate. The evidence can be submitted in a mixture of forms and, for that reason, the term 'body of work' is used in this document in place of 'folio'.
- ◆ Given the range of evidence that may be submitted, it is difficult to quantify the amount required. The main restriction is time. Remember that the Extended Case Study is an assessment instrument and must not be allowed to overwhelm learning and teaching. Allowing too much time for the production of the Extended Case Study may have a negative effect on performance, as candidates may not have been properly prepared to carry out the task. It may also result in poor preparation for the other external assessment, the Question Paper.
- ◆ The evidence must be presented in a structured way. This should not present a problem where a candidate has produced a body of work presented solely on A3 pages. However, if a candidate has submitted a body of work made up of, for example, working notes in a jotter, a video clip and A3 pages, they must ensure that the path through the evidence is clear to the reader.
- ◆ The Extended Case Study is a candidate's record of how they solved the problem. It is not a test of a candidate's graphic skills; it is a test of a candidate's ability to analyse a problem and develop and present valid solutions. In order to achieve success in a

reasonable timescale, the candidate must present evidence in a way that is appropriate to its position in the Extended Case Study.

- ◆ During the development of the design proposal, candidates should be generating ideas and exploring possible solutions. It is likely that they will make errors. Candidates must leave these in their body of work because these errors provide evidence for many of the criteria being assessed, and will allow the reader to follow the story of how the design proposal was reached.

## Allocation of marks

Section	Marks available	
<b>Section 1 – Definition of problem</b>	<b>25 marks</b>	
(a) Investigation of problem	15	
(b) Requirements of solution	10	
<b>Section 2 – Development of proposal</b>	<b>110 marks</b>	
(a) Generation of ideas and concepts	30	
(b) Synthesis towards proposal:	Knowledge and Understanding	20
	Skills	20
(c) Justification and reasoning	20	
(d) Communication	20	
<b>Section 3 – Summary of design proposal</b>	<b>15 marks</b>	
(a) Presentation and explanation of design proposal	15	
<b>Total</b>	<b>150 marks</b>	

### Guidance to candidates

Candidates should be familiar with the assessment criteria and guidance offered for each section of the Extended Case Study. **There is no restriction on copying this document for candidates.**

## Section 1: Definition of problem

The marks in this section are awarded for the quality and detail of the research into the problem, and the detail and validity of the requirements of the solution that is established. The requirements of the solution may be presented in the form of a specification.

The tables below give an indication of the characteristics that the body of work would display in order to achieve the marks in particular bandings.

**The body of work does not have to display all the characteristics listed within a banding to achieve the marks for that banding.**

### a) Investigation of problem

Level of Response	Marks available
<b>There is superficial investigation of the problem</b> <ul style="list-style-type: none"><li>◆ A limited range of research techniques has been used to identify the problem(s). Some of the techniques may be inappropriate.</li><li>◆ The application of the techniques is variable and in some cases may have rendered the results invalid.</li><li>◆ The techniques have generated superficial or inaccurate information about the problem.</li><li>◆ There is superficial justification of the research results.</li></ul>	0-5
<b>There is adequate investigation of the problem</b> <ul style="list-style-type: none"><li>◆ A range of valid research techniques has been used to identify the problem(s).</li><li>◆ The techniques have been correctly applied.</li><li>◆ Although the techniques have generated clear information about the problem, further research is required to provide detailed information.</li><li>◆ The results of the research are justified.</li></ul>	6-10
<b>There is detailed investigation of the problem</b> <ul style="list-style-type: none"><li>◆ A wide range of valid research techniques has been used to identify the problem(s).</li><li>◆ The techniques have been correctly applied.</li><li>◆ The techniques have generated clear and detailed information about the problem.</li><li>◆ The results of the research are clearly justified.</li></ul>	11-15

## b) Requirements of solution

Level of Response	Marks available
<p data-bbox="92 304 756 338"><b>The requirements of the solution are described</b></p> <ul data-bbox="92 376 1283 568" style="list-style-type: none"><li data-bbox="92 376 1174 450">◆ The requirements of the solution are generally based on research. Some of the requirements may have simply 'appeared'</li><li data-bbox="92 461 1283 568">◆ Most of the requirements of the solution are detailed. Some of the appropriate information which will allow a design proposal to be developed and evaluated has been missed or is not detailed.</li></ul>	0-5
<p data-bbox="92 618 876 651"><b>The requirements of the solution are described in detail</b></p> <ul data-bbox="92 689 1235 808" style="list-style-type: none"><li data-bbox="92 689 871 723">◆ The requirements of the solution are based on research</li><li data-bbox="92 734 1235 808">◆ The requirements of the solution are fully detailed. All of the appropriate information which will allow a design proposal to be developed and evaluated has been given.</li></ul>	6-10

## Section 2: Development of proposal

The marks in this section are awarded for the generation of ideas, the development and synthesis of the ideas and communication of the process and of the resulting design proposal.

The tables below give an indication of the characteristics that the body of work would display in order to achieve the marks in particular bandings.

**The body of work does not have to display all of the characteristics listed within a banding to achieve the marks for that banding.**

The marks in this section can be awarded across the body of work submitted. The sequence of the evidence need not follow the same order as the sub-sections.

The marks for Synthesis towards proposal are awarded for Knowledge & Understanding and Skills.

### a) Generation of ideas and concepts

Level of Response	Marks available
<b>Generation of ideas and concepts is weak</b> <ul style="list-style-type: none"><li>◆ The ideas and concepts lack any creativity and may simply be restyling of existing solutions.</li><li>◆ The ideas and concepts generated provide a very narrow platform to develop an appropriate design proposal.</li><li>◆ The requirements of the solution have largely been ignored when generating the ideas and concepts.</li><li>◆ Ideas and concepts are only generated at the start of the body of work.</li><li>◆ Idea generation techniques have not been used even when required.</li></ul>	0-6
<b>Generation of ideas and concepts is limited</b> <ul style="list-style-type: none"><li>◆ The ideas and concepts demonstrate some creativity but rely heavily on restyling existing solutions.</li><li>◆ The ideas and concepts generated provide a narrow platform to develop an appropriate design proposal.</li><li>◆ The requirements of the solution have been considered when generating the ideas and concepts.</li><li>◆ Ideas and concepts are mainly generated at the start of the body of work.</li><li>◆ Idea generation techniques have been used when required.</li></ul>	7-12
<b>Generation of ideas and concepts is adequate</b> <ul style="list-style-type: none"><li>◆ The ideas and concepts demonstrate some creativity.</li><li>◆ The ideas and concepts generated provide a reasonable platform to develop an appropriate design proposal.</li><li>◆ The requirements of the solution have been considered when generating the ideas and concepts.</li><li>◆ Ideas and concepts are mainly generated at the start of the body of work but there is also evidence of new ideas within the body of work.</li></ul>	13-18

<ul style="list-style-type: none"> <li>◆ Idea generation techniques have been used when required.</li> </ul>	
<p><b>Generation of ideas and concepts is strong:</b></p> <ul style="list-style-type: none"> <li>◆ The ideas and concepts demonstrate creativity.</li> <li>◆ The ideas and concepts generated provide a sound platform to develop an appropriate design proposal.</li> <li>◆ Most of the requirements of the solution have been taken into account when generating the ideas and concepts.</li> <li>◆ Ideas and concepts are generated when appropriate.</li> <li>◆ Idea generation techniques have been used when required.</li> </ul>	19-24
<p><b>Generation of ideas and concepts is very strong:</b></p> <ul style="list-style-type: none"> <li>◆ The ideas and concepts demonstrate good creativity.</li> <li>◆ The ideas and concepts generated provide a sound platform to develop an appropriate design proposal.</li> <li>◆ All of the requirements of the solution have clearly been taken into account when generating the ideas and concepts.</li> <li>◆ Ideas and concepts are generated when appropriate.</li> <li>◆ Idea generation techniques have been used when required.</li> </ul>	25-30

## b) Synthesis towards proposal

Level of Response	Marks available
<p><b>Knowledge &amp; Understanding</b></p> <p><b>There is generally little detail and understanding is superficial. A design proposal with little detail and little clarity is likely to have been generated. There is evidence of weak knowledge and understanding of:</b></p> <ul style="list-style-type: none"> <li>◆ <b>Materials:</b> Although materials have been selected for the design proposal, there is very little evidence to support the choice.</li> <li>◆ <b>Manufacturing Processes:</b> Although manufacturing processes have been selected for the design proposal, there is very little evidence to support the choice.</li> <li>◆ <b>Aesthetics:</b> Very limited consideration has been given to the factors that influenced the aesthetics of the design proposal.</li> <li>◆ <b>User interface:</b> Although there is evidence that the user interface has been considered, it will be limited in range and shallow in depth, eg general anthropometric data may have been used.</li> </ul>	0-5
<p><b>There is detail in a few areas and understanding is quite clear in a few places. However, the detail and understanding is not evident across the whole of the development. A design proposal with limited detail and clarity is likely to have been generated. There is evidence of limited knowledge and understanding of:</b></p> <ul style="list-style-type: none"> <li>◆ <b>Materials:</b> Materials have been selected for the design proposal and there is some evidence to support the choice.</li> <li>◆ <b>Manufacturing Processes:</b> Manufacturing processes have been selected for the design proposal and there is some evidence to support the choice.</li> <li>◆ <b>Aesthetics:</b> Some consideration has been given to the factors that have influenced the aesthetics of the design proposal.</li> <li>◆ <b>User interface:</b> There is limited evidence that the user interface has been considered. This will include some evidence on appropriate aspects of ergonomics.</li> </ul>	6-10
<p><b>There is, in areas, appropriate detail which displays an understanding of a range of knowledge. Detail in some areas may be weak or some important issues which would influence the development have been missed. A design proposal with adequate detail and clarity is likely to have been generated. There is evidence of good knowledge and understanding of:</b></p> <ul style="list-style-type: none"> <li>◆ <b>Materials:</b> Consideration of appropriate materials will have allowed a viable design proposal to be developed. A range of issues have clearly been considered in choosing materials for the design proposal.</li> <li>◆ <b>Manufacturing Processes:</b> Consideration of appropriate manufacturing processes will have allowed a viable design proposal to be developed. A range of issues have clearly been considered in choosing manufacturing processes for the design proposal.</li> <li>◆ <b>Aesthetics:</b> Consideration of aesthetics will have allowed a viable design proposal to be developed. A range of issues have clearly been considered in developing the aesthetics of the design proposal.</li> <li>◆ <b>User interface:</b> Consideration of the user interface will have allowed a viable design proposal to be developed. The target market and range of users have been considered in relation to the comfort and ease of use the design proposal.</li> </ul>	11-15

**There is appropriate detail which displays an understanding of a wide range of knowledge. A design proposal with a high level of detail and clarity is likely to have been generated.**

16-20

**There is evidence of very strong knowledge and understanding of:**

- ◆ **Materials:** Detailed consideration of appropriate materials, including recent developments, will have allowed a viable design proposal to be developed. Function, conditions of use, economics, manufacturing processes, assembly methods, life span and environmental issues have clearly been considered in choosing materials for the design proposal.
- ◆ **Manufacturing Processes:** Detailed consideration of appropriate manufacturing processes, including recent developments, will have allowed a viable design proposal to be developed. Materials, production systems, economics, assembly methods, life span and environmental issues have clearly been considered in choosing manufacturing processes for the design proposal.
- ◆ **Aesthetics:** Detailed consideration of aesthetics will have allowed a viable design proposal to be developed. The target market, materials, economics and performance have clearly been considered in developing the aesthetics of the design proposal.
- ◆ **User interface:** Detailed consideration of the user interface will have allowed a viable design proposal to be developed. The target market and range of users have been clearly considered in relation to the comfort and ease of use of the design proposal. Appropriate aspects of ergonomics have been considered and used to develop the design proposal.

Level of Response	Marks available
<p data-bbox="108 219 188 248"><b>Skills</b></p> <p data-bbox="108 255 1230 322"><b>Skills demonstrated are generally weak or inappropriate. They are likely to have resulted in a basic design proposal. There is evidence of weak ability to:</b></p> <ul data-bbox="113 367 1310 770" style="list-style-type: none"> <li data-bbox="113 367 1246 434">◆ Explore: There is superficial exploration of the aesthetics, functionality and the manufacture of the potential proposals. Development will tend to be linear and rigid.</li> <li data-bbox="113 450 1075 479">◆ Refine: The need for refinement will be limited due to poor exploration.</li> <li data-bbox="113 495 1286 562">◆ Be Creative: Creativity in both the aesthetics and in the solutions to manufacturing and functional problems is weak.</li> <li data-bbox="113 577 1286 645">◆ Generate Pathways: Pathways will be very basic due to the lack of exploration and the simplicity of the development.</li> <li data-bbox="113 660 1310 689">◆ Test viability of ideas: Testing is basic and results may not be based on sound evidence.</li> <li data-bbox="113 705 1241 772">◆ Apply knowledge: The proposal has been produced by the basic application design knowledge.</li> </ul>	<p data-bbox="1417 255 1458 284">0-5</p>
<p data-bbox="108 826 1294 927"><b>Skills demonstrated are variable and may be limited. They are likely to have resulted in a design proposal which does not fully address the requirements of the solution. There is evidence of limited ability to:</b></p> <ul data-bbox="113 972 1302 1487" style="list-style-type: none"> <li data-bbox="113 972 1302 1084">◆ Explore: There is some exploration of the aesthetics, functionality and the manufacture of the potential proposals. The vast majority of the exploration will tend to be at the start of the development. Much of the development will tend to be linear.</li> <li data-bbox="113 1099 1294 1167">◆ Refine: Although the limited exploration will have reduced the need for refinement there will be some evidence of the resolution of competing design issues.</li> <li data-bbox="113 1182 1286 1249">◆ Be Creative: Creativity in both the aesthetics and in the solutions to manufacturing and functional problems is limited. Development of aesthetics may simply be restyling.</li> <li data-bbox="113 1265 1222 1332">◆ Generate Pathways: Pathways will be basic due to the lack of exploration and the simplicity of the development.</li> <li data-bbox="113 1348 1302 1415">◆ Test viability of ideas: Testing covers a range of issues but some of it may be basic and some of the results may not be based on sound evidence.</li> <li data-bbox="113 1431 1257 1498">◆ Apply knowledge: The proposal has been produced by the limited application design knowledge.</li> </ul>	<p data-bbox="1406 826 1469 855">6-10</p>

<p><b>A range of skills has been applied to generate a detailed design proposal. They are likely to have resulted in a design proposal which shows some originality and generally meets the requirements of the solution. There is evidence of ability to:</b></p> <ul style="list-style-type: none"> <li>◆ Explore: There is exploration throughout the development. This includes exploration of the aesthetics, functionality and the manufacture of the potential proposals. Exploration will occur throughout the development and may lead to a complex trail of evidence. Opportunities for further exploration at critical stages may have been missed.</li> <li>◆ Refine: Although some of the exploration may have led to dead ends or gone off at a tangent there has been a sifting of ideas to allow a proposal to emerge. Some conflicting issues may not have been identified or fully resolved.</li> <li>◆ Be Creative: Creative thinking has been applied throughout the body of work. This may evident in the form of originality of ideas, solutions to problems during the development of the proposal and in the final proposal itself. Creativity may be evident in both the aesthetics and in the solutions to manufacturing and functional problems.</li> <li>◆ Generate Pathways: There will be pathways and links evident in the body of work. These may be fairly complex but will demonstrate the ability to synthesise towards a solution. Most of the critical stages in the development will be clear.</li> <li>◆ Test viability of ideas: Emerging proposals will be tested against available benchmarks. These may range from evaluation against the specification through to test rigs. Most aspects of the proposal have been tested; functional as well as aesthetic.</li> <li>◆ Apply knowledge: The proposal has been produced by the good application of a range of valid design knowledge.</li> </ul>	<p>11-15</p>
<p><b>A range of high-level skills has been applied throughout the development to generate a detailed design proposal. They are likely to have resulted in a design proposal which shows originality and clearly meets the requirements of the solution. There is evidence of strong ability to:</b></p> <ul style="list-style-type: none"> <li>◆ Explore: There is detailed exploration. This includes exploration of the aesthetics, functionality and the manufacture of the potential proposals. Exploration will occur throughout the development and may lead to a complex trail of evidence.</li> <li>◆ Refine: Although some of the exploration may have led to dead ends or gone off at a tangent there has been a sifting of ideas to allow a proposal to emerge. There will be clear resolution and balancing between competing design issues.</li> <li>◆ Be Creative: Creative thinking has been applied throughout the body of work. This is evident in the form of originality of ideas, solutions to problems during the development of the proposal and in the final proposal itself. Creativity is evident in both the aesthetics and in the solutions to manufacturing and functional problems.</li> <li>◆ Generate Pathways: There will be pathways and links evident in the body of work. These may be complex but will demonstrate ability to synthesise towards a solution. Critical stages in the development will be clear.</li> <li>◆ Test viability of ideas: Emerging proposals will be tested against available benchmarks. These may range from evaluation against the specification through to test rigs. All aspects of the proposal have been tested; functional as well as aesthetic.</li> <li>◆ Apply knowledge: The proposal has been produced by the sound application of a wide range of valid design knowledge.</li> </ul>	<p>16-20</p>

### c) Justification and reasoning

Level of Response	Marks available
<p><b>There is evidence of weak justification and reasoning is weak:</b></p> <ul style="list-style-type: none"><li>◆ Although decision making is evident within the body of work it is often superficial.</li><li>◆ Although decisions at critical points in the development of the design proposal are justified it is often superficial.</li><li>◆ Although decisions taken in developing the requirements for the solution are justified it is often superficial.</li></ul>	0-5
<p><b>Justification and reasoning is limited:</b></p> <ul style="list-style-type: none"><li>◆ Decision making is evident within the body of work.</li><li>◆ Decisions at critical points in the development of the design proposal are justified. Some of the justification may not be valid.</li><li>◆ Decisions taken in developing the requirements for the solution are justified. Some of the justification may not be valid.</li></ul>	6-10
<p><b>Justification and reasoning is valid:</b></p> <ul style="list-style-type: none"><li>◆ Decision making which is based on sound personal and researched knowledge is evident within the body of work.</li><li>◆ Decisions at critical points in the development of the design proposal are justified.</li><li>◆ Decisions taken in developing the requirements for the solution are justified.</li></ul>	11-15
<p><b>Justification and reasoning is valid and detailed:</b></p> <ul style="list-style-type: none"><li>◆ Decision making which is based on sound personal and researched knowledge is evident throughout the body of work.</li><li>◆ Decisions at critical points in the development of the design proposal are fully justified.</li><li>◆ Decisions taken in developing the requirements for the solution are fully justified.</li></ul>	16-20

## d) Communication

Level of Response	Marks available
<p><b>Communication is weak</b></p> <ul style="list-style-type: none"><li>◆ Although facts and ideas have been communicated throughout the body of work much of the communication is at a superficial or ambiguous level.</li><li>◆ The level of detail is inappropriate to the information being communicated. The detail is often superficial.</li><li>◆ Inappropriate communication techniques have been used. Drawings may have been used where models would be more appropriate or fully rendered drawings may appear at the very early stage of the body of work. Fully rendered drawings appear where quick sketches would be more appropriate.</li><li>◆ Although there is a structure to the body of work it is at a basic level.</li></ul>	0-5
<p><b>Communication is limited</b></p> <ul style="list-style-type: none"><li>◆ Facts and ideas have been communicated throughout the body of work. Some of the communication is unclear.</li><li>◆ The level of detail is generally appropriate to the information being communicated.</li><li>◆ Appropriate communication techniques have been used in some instances.</li><li>◆ Although there is a clear structure to the body of work there is a lack of detail in the body of work.</li></ul>	6-10
<p><b>Communication is good</b></p> <ul style="list-style-type: none"><li>◆ Facts and ideas have been communicated clearly throughout the body of work.</li><li>◆ There is a good level of detail communicated in most instances.</li><li>◆ Appropriate communication techniques have been used in most instances.</li><li>◆ There is a clear structure to the body of work.</li></ul>	11-15
<p><b>Communication is strong</b></p> <ul style="list-style-type: none"><li>◆ Facts and ideas have been communicated very clearly throughout the body of work.</li><li>◆ There is a high level of detail communicated when required.</li><li>◆ Appropriate communication techniques have been used throughout the body of work.</li><li>◆ There is a very clear structure to the body of work.</li></ul>	16-20

## Section 3 – Summary of design proposal

The marks in this section are awarded for the quality and detail of the presentation and explanation of the design proposal.

The table below gives an indication of the characteristics that the body of work would display in order to achieve the marks in particular bandings.

**It should be noted that the body of work does not have to display all of the characteristics listed within a banding to achieve the marks for that banding.**

### (a) Presentation and explanation of design proposal

Level of Response	Marks available
<b>There is a weak presentation and explanation of design proposal</b> <ul style="list-style-type: none"><li>◆ The design proposal addresses some of the requirements of the solution.</li><li>◆ There is a vague description of the design proposal and its features.</li><li>◆ There is a superficial evaluation of the design proposal.</li><li>◆ There are vague suggestions for further work to improve the design proposal.</li><li>◆ There is superficial reflection on the development of the design proposal.</li></ul>	0-5
<b>There is a good presentation and explanation of design proposal</b> <ul style="list-style-type: none"><li>◆ The design proposal addresses the main requirements of the solution.</li><li>◆ There is an adequate description of the design proposal and its features. Further detail or clarity could be added.</li><li>◆ There is an evaluation of the design proposal which is based on evidence.</li><li>◆ There are some suggestions for further work to improve the design proposal.</li><li>◆ There is reflection on the development of the design proposal.</li></ul>	6-10
<b>There is a very strong presentation and explanation of design proposal</b> <ul style="list-style-type: none"><li>◆ The design proposal clearly addresses the requirements of the solution.</li><li>◆ There is a clear description of the design proposal and its features.</li><li>◆ There is a clear evaluation of the design proposal which is based on solid evidence.</li><li>◆ There are clear and valid suggestions for further work to improve the design proposal.</li><li>◆ There is clear and valid reflection on the development of the design proposal.</li></ul>	11-15