

## Appendix 1

### Assessment Criteria and Mark Bands for Unit AS 2: Product Development

Communication: candidates should present their information for assessment in a coherent and concise manner using a range of formats, including ICT, illustrations, extensive photographs, annotated sketches, text and other appropriate media.

*Candidates should reference all source material clearly.*

Investigation and Analysis of Product						
Assessment Objectives	High Mark Band	Mark	Medium Mark Band	Mark	Low Mark Band	Mark
AO1 AO2	<p>Candidates:</p> <ul style="list-style-type: none"> <li>• present a wide range of existing similar products in detail</li> <li>• give a detailed description of function, purpose and features</li> <li>• provide an in-depth consideration of relevant materials and industrial production methods</li> <li>• present a detailed evaluation of fitness for purpose</li> <li>• present high level analysis of ergonomics, sustainability and aesthetic suitability.</li> </ul>	<b>7–10</b>	<p>Candidates:</p> <ul style="list-style-type: none"> <li>• present a good range of existing similar products in moderate detail</li> <li>• give a good description of function, purpose and features</li> <li>• provide some consideration of relevant materials and industrial production methods</li> <li>• present an evaluation of fitness for purpose with some detail</li> <li>• present a good analysis of ergonomics, sustainability and aesthetic suitability.</li> </ul>	<b>4–6</b>	<p>Candidates:</p> <ul style="list-style-type: none"> <li>• present only a narrow range or list of existing similar products</li> <li>• give a short description of function, purpose and features</li> <li>• provide a superficial consideration of relevant materials and industrial production methods</li> <li>• present a superficial evaluation of fitness for purpose</li> <li>• present a basic analysis of ergonomics, sustainability and aesthetic suitability.</li> </ul>	<b>1–3</b>
<b>Award zero for work not worthy of credit.</b>						

Redesign Solutions and Development						
Assessment Objectives	High Mark Band	Mark	Medium Mark Band	Mark	Low Mark Band	Mark
AO1 AO2	<p>Candidates:</p> <ul style="list-style-type: none"> <li>• write a detailed redesign specification</li> <li>• generate a range of innovative and sustainable design modifications using high quality annotated sketches</li> <li>• evaluate in detail the viability of each modification</li> <li>• present a detailed plan for the making process</li> <li>• produce a detailed sequence of redesign development drawings</li> <li>• produce high level working drawings for the making process</li> <li>• <b>detailed evidence of evaluation of the outcomes of modelling in a critical and objective manner.</b></li> </ul>	<b>36–50</b>	<p>Candidates:</p> <ul style="list-style-type: none"> <li>• write a good redesign specification</li> <li>• generate a good range of innovative and sustainable design modifications using adequately annotated sketches</li> <li>• evaluate with some detail the viability of each modification</li> <li>• present a plan for the making process with some detail</li> <li>• produce a limited sequence of redesign development drawings</li> <li>• produce good working drawings for the making process</li> <li>• <b>good evidence of evaluation of the outcomes of modelling in a critical and objective manner.</b></li> </ul>	<b>16–35</b>	<p>Candidates:</p> <ul style="list-style-type: none"> <li>• write a basic redesign specification</li> <li>• generate an innovative and sustainable design modification using adequately annotated sketches</li> <li>• evaluate in superficial detail the viability of each modification</li> <li>• present a superficial plan for the making process</li> <li>• produce a superficial sequence of redesign development drawings</li> <li>• produce poor working drawings for the making process</li> <li>• <b>limited evidence of evaluation of the outcomes of modelling in a critical and objective manner.</b></li> </ul>	<b>1–15</b>
<b>Award zero for work not worthy of credit.</b>						

## Assessment Criteria and Mark Bands for Unit A2 2: Product–System Design and Manufacture

Communication: candidates should present their information for assessment in a coherent and concise manner using a range of formats, including ICT, illustrations, extensive photographs, annotated sketches, text and other appropriate media.

*Candidates should reference all source material clearly.*

Identifying a Problem, Client or User Needs and Design Specification						
Assessment Objectives	High Mark Band	Mark	Medium Mark Band	Mark	Low Mark Band	Mark
AO1 AO2	<p>Candidates:</p> <ul style="list-style-type: none"> <li>identify the problem or need leading to a detailed design brief</li> <li>identify the potential client or end user with relevant consideration of associated design implications</li> <li>analyse existing solutions, using a range of research techniques</li> <li>propose a design specification supporting excellent development of ideas</li> <li>provide detailed evidence of referencing source material.</li> </ul>	7–10	<p>Candidates:</p> <ul style="list-style-type: none"> <li>make some identification of the problem or need leading to a design brief with some detail</li> <li>identify the potential client or end user with some consideration of associated design implications</li> <li>analyse existing solutions using a good range of research techniques</li> <li>propose a design specification supporting good development of ideas</li> <li>provide some evidence of referencing source material.</li> </ul>	4–6	<p>Candidates:</p> <ul style="list-style-type: none"> <li>make a superficial identification of the problem or need leading to a poor design brief</li> <li>identify the potential client or end user with limited consideration of associated design implications</li> <li>analyse existing solutions using basic research techniques</li> <li>propose a basic design specification supporting superficial development of ideas</li> <li>provide limited evidence of referencing source material.</li> </ul>	1–3
<b>Award zero for work not worthy of credit.</b>						

Initial Ideas, Selection of Ideas for Development						
Assessment Objectives	High Mark Band	Mark	Medium Mark Band	Mark	Low Mark Band	Mark
AO1 AO2	Candidates: <ul style="list-style-type: none"> <li>produce innovative design outcomes, integrating either systems and control or product design features</li> <li>evaluate each concept in detail, based on relevant criteria</li> <li>select a concept suitable for detailed development.</li> </ul>	14–20	Candidates: <ul style="list-style-type: none"> <li>produce good design outcomes with some innovation, integrating either systems and control or product design features</li> <li>make an evaluation of each concept based on relevant criteria with some detail</li> <li>select a concept suitable for development with some detail.</li> </ul>	7–13	Candidates: <ul style="list-style-type: none"> <li>produce basic design outcomes lacking innovation, integrating either systems and control or product design features</li> <li>make a superficial evaluation of each concept based on relevant criteria</li> <li>select a concept suitable only for superficial development.</li> </ul>	1–6
<b>Award zero for work not worthy of credit.</b>						

Development						
Assessment Objectives	High Mark Band	Mark	Medium Mark Band	Mark	Low Mark Band	Mark
AO1 AO2	<p>Candidates:</p> <ul style="list-style-type: none"> <li>develop the control system or product to an excellent final outcome</li> <li>present detailed evidence of numerical analysis in development</li> <li>document making and design decisions with detailed justification to support the decisions made during development</li> <li>develop the concept to integrate with the user and environment appropriately</li> <li>present appropriate evidence of ergonomic and aesthetic development</li> <li>present a detailed plan of the making process</li> <li>produce detailed working drawings for the making process</li> <li>detailed justification of decisions made during development through modelling.</li> </ul>	21–30	<p>Candidates:</p> <ul style="list-style-type: none"> <li>develop the control system or product to a good outcome</li> <li>present limited evidence of numerical analysis in development with some detail</li> <li>document making and design decisions with some justification to support the decisions made during development</li> <li>develop the concept to integrate with the user and environment with some limitations</li> <li>present some evidence of ergonomic and aesthetic development</li> <li>present a plan of the making process with some detail</li> <li>produce good working drawings for the making process with some detail</li> <li>good justification of decisions made during development through modelling.</li> </ul>	10–20	<p>Candidates:</p> <ul style="list-style-type: none"> <li>develop the control system or product to a limited outcome</li> <li>present superficial evidence of numerical analysis in development</li> <li>document making and design decisions with superficial justification to support the decisions made during development</li> <li>develop the concept to integrate with the user and environment with a range of limitations</li> <li>present basic evidence of ergonomic and aesthetic development</li> <li>present a basic plan of the making process</li> <li>produce basic working drawings for the making process</li> <li>limited justification of decisions made during development through modelling.</li> </ul>	1–9
<b>Award zero for work not worthy of credit.</b>						

