Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

APPENDIX GA36b

LEVEL 5 ASSESSMENT SPECIFICATION

Student name:		**Student ID number:**	
Programme:	**BSc/MDes Product Design & Technology**		
Module:	**Design for Manufacture**		
Module code:	**M5X01238**	**Contribution to Overall Module Assessment (%):**	**60%**
Lecturer:	**M Archer**	**Internal Verifier:**	**J Hill**
Assignment Title:	**IKEA: Lighting**	**Word count (or equivalent):**	**7 Elements**
Submission deadline:	**13.05.19**	**Return date of provisional marks & written feedback:**	**Week beginning 03.06.19**
Submission method:	All written assessments, where practical and possible, must be submitted via Turnitin unless otherwise instructed by the Lecturer. (Please DO NOT put this assessment specification into Turnitin or it will match many similarities with other students' submissions.) **Alternative submission method (if applicable):** **Late submission of the assessment will result in a late penalty mark.** Penalties for late submission: Up to one week late, maximum mark of 40%. Over one week late, 0%. Only the Extenuating Circumstances Panel may approve a change to submission dates.		
Academic honesty / referencing:	Academic honesty is required. In the main body of your submission you must give credit to authors on whose research and ideas your work is based. Append to your submission a reference list that indicates the books, articles, etc. that you have used, cited or quoted in order to complete this assessment.		

Module Learning Outcomes (from module syllabus)
1. To apply knowledge, understanding of design detailing for production with regard to materials and manufacturing constraints. 2. To apply knowledge, understanding and critical awareness of sustainable development when designing products with regard to environment, economic and social issues.

TASK DESCRIPTION

The module will introduce you to the importance of designing for manufacture, where upon you must consider all aspects of the concept's details and how all components have been considered for sustainable development and production with regard to economic, social and environmental criteria. You will present a body of work that demonstrates your ability to design components for manufacture and product assembly.

IKEA DESIGN CHALLENGE: WALL OR PENDANT LIGHTING
DESIGN A MECHANICAL LIGHTING CONCEPT FOR MANUFACTURE & ASSEMBLY

BE DYNAMIC & CREATIVE, AND KEEP THE MECHANISM SIMPLE!

There are **THREE** assessment parts to this coursework element of the module which will be used to assess the Learning Outcomes 1 & 2.

You will present your Lighting concepts, then **SELECT** another colleague's design idea and fully detail it for manufacture, adhering to the Product Design Criteria. This will introduce you to commercial reality of taking someone else's design forward, it's part of being professional. Your ideas are not always chosen! This will entail designing all the components and specifying their material and method of manufacture. You may make **MINOR** modifications to ensure that the concept outcome will function, and you will need to give the light an appropriate Swedish name!

Product Design Criteria:

- Consider the IKEA brand philosophy;
- The light MUST be either a Wall or Pendant type;
- Any type or combination of materials may be used;
- The design must be multiple component and assembled by the user;
- The design should be easy to assemble by the user;
- The design must have a mechanical function;
- No specialist tools should be required to assemble the product (standard screwdrivers etc.) You may include tools as part of the product purchase;
- You may select the light bulb/LED as appropriate to the lights function;
- You may use an 'off the shelf' light socket (preferably from IKEA);
- Remember to consider how it could be packaged for 'taking home';

Context, Assessment Criteria & Submission Deliverables:

To complete this coursework element of the Design for Manufacture module you will need to:

- Present 3 conceptual sketch ideas with the corresponding research inspired image for an IKEA Wall or Pendant Light with a mechanical functionality. Ensure that your sketch ideas show the mechanical functionality. (3 x A3 landscape format);

Assessment Criteria:
The Sketch Generation will be assessed in relation to the specified deliverables as follows:
- LO1&2 using the common assessment & marking criteria 1

Submission Deadline: 10.00am 05.02.19

- Submit a Development Portfolio of the detailing of your final design of the selected concept idea which should evidence your design thinking with regard to the material & manufacturing consideration to feature development, and component assembly relationships and its off & on line usage i.e. assembly & packaging. This is where you rationalise the full detail of the product architecture and component layout, i.e. all fixtures & fittings. NO 3D CAD at this stage.

- Submit the Manufacturing & Material Specification for each component of your design solution. Use the specified A4 template to input your data set per component;

- Present Final QUALITY Sketch Visuals – **FREEHAND**
  - Exploded View of the final design concept (inclusive of all components) – A3 Format
  - Perspective View of the final design concept (inclusive of all components) – A3 Format

Assessment Criteria:
The Development Portfolio will be assessed in relation to the specified deliverables as follows:
- LO1&2 using the common assessment & marking criteria 3

The Manufacturing & Material Specification will be assessed in relation to the specified deliverables as follows:
- LO1&2 using the common assessment & marking criteria 2

The Final Sketch Visuals will be assessed in relation to the specified deliverables as follows:
- LO1&2 using the common assessment & marking criteria 5

Submission Deadline: 10.00am 05.03.19

- Submit 2 x A3 Professional Presentation Visuals: illustrating your final design outcome. **DO NOT** add text boxes to the visuals as this will make the images clearer and visually more appealing, you should try and name the concept appropriately. These presentation boards should clearly communicate the design intent and outcome in a professional manner printed in landscape format. You **MUST** show the light's radiance. You may use 2D/3D CAD;

  Digital Format File Name: 2018-19-D4M-Surname, First Initial plus add the suffix 1 & 2 for each board (PDF file output);

- Submit an Assembly Instruction Booklet which visually annotates the assembling of your Light design as per the current IKEA format (PDF file output);

  Digital Format File Name: 2018-19-D4M-Surname, First Initial-IB (PDF file output);

Assessment Criteria:
The Presentation Visuals will be assessed in relation to the specified deliverables as follows:
- LO1&2 using the common assessment & marking criteria 4, 5

The Instruction Booklet will be assessed in relation to the specified deliverables as follows:
- LO1&2 using the common assessment & marking criteria 4, 5

Submission Deadline: 1.00pm 13.05.19

Note: Common assessment & marking criteria weightings are specified in the Guidance section.

Please note that this is a design assignment that is challenging you to consider the appropriateness of your design outcome for commercial production i.e. detailing all features for manufacture and sustainability. The final presentation visuals should be of high quality, as you will be allowed to use 2D/3D CAD to model and render your design solution, though DO NOT constrain your design creativity to your virtual skill-set. Good quality freehand line work/renderings are acceptable for the development portfolio and exploded & assembly drawings. If you have used 'off the shelf' components then you need to specify the Part Number & manufacturing/supplier company. Ensure that you use the Manufacturing & Material Specification template found on Moodle.

All work must be **PROFESSIONALLY** presented. Be focused and objective in undertaking this assignment, make no assumptions!

PLEASE ENSURE THAT ALL DIGITAL FILES ARE NAMED AS SPECIFIED WITH THE FILE NAME ALL IN CAPITALS. FILE FORMAT – PDF

Resources:
1. Seminar presentations & reference material on Moodle.
2. Library & Internet resources.
3. Design Studio, Workshops, CAD Studio.

Feedback:
During the semester there will be regular tutorials (group & individual) which you will need to attend, where FORMATIVE feedback will be given regarding the project. It is your responsibility to record the actions that are discussed at these tutorials and bring these records to every tutorial with any of the module tutors. This is a record for staff and yourself to refer to in order to ensure the project is progressing. Failure to attend tutorials will mean you are foregoing the formative feedback process.

You will be provided with written SUMMATIVE feedback and the opportunity to discuss your performance in a studio tutorial during the week beginning June 3rd 2019. For breakdown of Common Assessment and Marking Criteria into grading categories refer to Moodle.

Please note:
1. It is important you bring the appropriate project work with you to every tutorial relevant to the specific module assignment
2. Your attendance is monitored (as per University regulations).

GUIDANCE FOR STUDENTS IN THE COMPLETION OF TASKS

NOTE: The guidance offered below is linked to the five generic assessment criteria overleaf.

1. Engagement with Literature Skills (Marks Available: 10 out of 100)

Your work must be informed and supported by scholarly material that is *relevant* to and *focused* on the task(s) set. You should provide evidence that you have accessed an appropriate *range* of sources, which may be academic, governmental and industrial; these sources may include academic journal articles, textbooks, current news articles, organisational documents, and websites. You should consider the *credibility* of your sources; academic journals are normally highly credible sources while websites require careful consideration/selection and should be used sparingly. Any sources you use should be current and up-to-date, mostly published within the last five years or so, though seminal/important works in the field may be older. You must provide *evidence* of your research/own reading throughout your work, using a suitable referencing system, including in-text citations in the main body of your work and a reference list at the end of your work.

Guidance specific to this assessment:

- *Clearly show your engagement with a range of relevant and credible literature;*

2. Knowledge and Understanding Skills (Marks Available: 25 out of 100)

At level 5, you should be able to demonstrate: sound knowledge and critical understanding of the well-established concepts and principles of the subject area and the way in which those principles have developed; knowledge of the main methods of enquiry in the discipline. *Knowledge* relates to the facts, information and skills you have acquired through your learning. You demonstrate your *understanding* by interpreting the meaning of the facts and information (knowledge). This means that you need to select and include in your work the concepts, techniques, models, theories, etc. appropriate to the task(s) set. You should be able to explain the theories, concepts, etc. meaningfully to show your understanding. Your mark/grade will also depend upon the *extent* to which you demonstrate your knowledge and understanding.

Guidance specific to this assessment:

- *Clearly show your knowledge and understanding of the principles of product design development and application.*

3. Cognitive and Intellectual Skills (Marks Available: 25 out of 100)

You should be able to critically analyse information, and propose solutions to problems arising from that analysis, including the critical evaluation of the appropriateness of different approaches to solving problems. Your work must contain evidence of logical, analytical thinking, evaluation and synthesis. For example, to examine and break information down into parts, make inferences, compile, compare and contrast information. This means not just describing what! But also justifying: Why? How? When? Who? Where? At what cost? At all times, you must provide justification/evidence for your arguments and judgements. Evidence that you have reflected upon the ideas of others within the subject area is crucial to you providing a reasoned and informed debate within your work. Furthermore, you should provide evidence that you are able to make sound judgements and convincing arguments using data and concepts, with an understanding of the limits of knowledge, and how this influences analyses and interpretations. Sound, valid conclusions are necessary and must be derived from the content of your work. Where relevant, alternative solutions and recommendations may be proposed.

Guidance specific to this assessment:

- *Clearly show your design thinking through your evaluation and analysis in designing the outcomes.*

4. Practical Skills (Marks Available: 20 out of 100)

At level 5, you should be able to use/deploy a range of established techniques within the discipline, and apply underlying concepts and principles outside the context in which they were first studied, including, where appropriate, the application of those principles in an employment context. You should be able to demonstrate how the subject-related concepts and ideas relate to real world situations and/or a particular context. How do they work in practice? You will deploy models, methods, techniques, and/or theories, in that context, to assess current situations, perhaps to formulate plans or solutions to solve problems, or to create artefacts, some of which may be creative. This is likely to involve, for instance, the use of real world artefacts, examples and cases, the application of a model within an organisation and/or benchmarking one theory or organisation against others based on stated criteria. You should show awareness of the limitations of concepts and theories when applied in particular contexts.

Guidance specific to this assessment:

- *Clearly demonstrate your academic skills and capacity to utilise design tools to express your design thinking.*

5. Transferable Skills for Life and Professional Practice (Marks Available: 20 out of 100)

Your work must provide evidence of the qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and decision-making. This includes demonstrating: professional development to advance existing skills and acquire new competences that will enable you to assume significant responsibility within organisations; that you can initiate and complete tasks and procedures, whether individually and/or collaboratively; that you can use appropriate media to effectively communicate information, arguments and analysis in a variety of forms to specialist and non-specialist audiences; fluency of expression; clarity and effectiveness in presentation and organisation. Work should be coherent and well-structured in presentation and organisation.

Guidance specific to this assessment:

- *Clearly communicate your design research, development and outcome in a coherent and professional manner with due consideration to the reader/audience.*

GENERIC ASSESSMENT CRITERIA

Level 5
In accordance with the Framework for Higher Education Qualifications, at the end of Level 5 students will be expected to have developed sound knowledge and critical understanding of the well-established concepts and principles in their field of study, and of the way in which those principles have developed. They will have learned to apply those concepts and principles more widely outside the context in which they were first studied, including, where appropriate, the application of those principles in an employment context. They will have knowledge of the main methods of enquiry in the subject area, and ability to evaluate critically different approaches to problem solving. They will possess an understanding of the limits of their knowledge, and how this influences their analyses and interpretations. They will be able to use a range of established techniques to initiate and undertake critical analysis of information, and to propose solutions to problems arising from that analysis. They will be able to effectively communicate information, arguments and analysis in a variety of forms to specialist and non-specialist audiences, and deploy key techniques of the discipline effectively. They will be able to undertake further training, develop existing skills and acquire new competences that will enable them to assume significant responsibility within organisations. They will have the qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and decision-making.

Level 5	FAIL	MARGINAL FAIL	SATISFACTORY (3rd / Pass)	GOOD (2.2 / Pass)	VERY GOOD (2.1 / Merit)	EXCELLENT (1st / Distinction)	EXCEPTIONAL (1st / Distinction)
Category	**0-29%**	**30-39%**	**40-49%**	**50-59%**	**60-69%**	**70-84%**	**85-100%**
Engagement with literature (including reading, referencing, academic conventions and academic honesty)	Little or no evidence of reading and/or reliance on inappropriate sources. Views and findings mostly unsupported and non-authoritative. Referencing conventions used incoherently or largely absent.	Poor engagement with essential reading. No evidence of wider reading. Reliance on inappropriate sources, and/or indiscriminate use of sources. Heavily reliant on information gained through class contact. Inconsistent and weak use of referencing.	Engagement with a limited range of mostly relevant and credible sources. Some omissions and minor errors. Referencing conventions evident though not always applied accurately or consistently.	Engagement with an appropriate range of literature, including sources retrieved independently. Some over-reliance on texts. Referencing may show minor inaccuracies or inconsistencies.	Engagement with a wide range of literature, including sources retrieved independently. Selection of relevant and credible sources. Very good use of referencing, with no/very few inaccuracies or inconsistencies.	Engagement with an extensive range of relevant and credible literature. Consistently accurate application of referencing.	Exceptional engagement with an extensive range of relevant and credible literature. High-level referencing skills consistently applied.
Knowledge and understanding (Sound knowledge and	Major gaps in knowledge with unsatisfactory, uncritical understanding of	Fragmentary knowledge, with only superficial critical understanding.	Limited but adequate knowledge and critical understanding of	Knowledge is reasonably detailed and accurate. A good critical	Knowledge is reasonably extensive. Exhibits very competent	Excellent, detailed knowledge and highly critical understanding of	Exceptionally detailed knowledge and outstanding critical

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critical understanding of the well-established concepts and principles in their field of study; knowledge of the main methods of enquiry in the discipline.)	the subject matter. Much irrelevant material. Substantial inaccuracies. Significantly flawed understanding of the main methods of enquiry in the discipline.	Some significant inaccuracies and/or irrelevant material. Incomplete or partially flawed understanding of the main methods of enquiry in the discipline.	the well-established concepts and principles within the subject area, with a few gaps in the selection of material. A narrow critical understanding of the main methods of enquiry.	understanding of the well-established concepts and principles and the main methods of enquiry, with minor gaps in the selection of material.	critical understanding of the well-established concepts and principles of the subject and the main methods of enquiry. Breadth and depth of knowledge.	the well-established concepts and principles of the subject and the main methods of enquiry.	understanding of the well-established concepts and principles of the subject and the main methods of enquiry. May go beyond established theories.
Cognitive and intellectual skills (Critical evaluation and analysis of concepts and principles; argument and judgement**;** the limits of their knowledge, and how this influences their analyses and interpretations.)	Wholly or almost wholly descriptive work. Little or no critical evaluation and analysis of concepts and principles. Failure to develop arguments, leading to illogical or invalid judgements. Unsubstantiated generalisations or opinion, made without use of any credible evidence.	Largely descriptive work, with superficial use of critical evaluation and analysis of concepts and principles. Weak development of arguments and judgements. Information accepted uncritically, uses generalised statements made with scant evidence and unsubstantiated opinions. Ideas sometimes illogical and contradictory.	Limited attempt at critical evaluation and analysis of concepts and principles, tending towards description. Some evidence to support arguments and judgements but these may be underdeveloped, with a little inconsistency / mis-interpretation or failure to fully recognise limits of knowledge.	Some critical evaluation and analysis of concepts and principles, though descriptive in parts. An emerging awareness the limits of their knowledge and ability to use evidence to support the argument though with some tendency to assert/state opinion rather than argue on the basis of reason and evidence. Mostly valid arguments and logical judgements.	Sound critical evaluation and analysis of concepts. Is selective in the range of evidence used and synthesises rather than describes. Ability to devise arguments that show awareness of different stances, and use evidence convincingly, to support appropriate and valid judgements.	Excellent critical evaluation and analysis of concepts and principles leading to logical, evidence-based, reasoned arguments and judgements. Explicit recognition of other stances and a strong awareness of the limits of their knowledge. A capacity for independent thought and ability to 'see beyond the question', suggesting some grasp of the broader field and wider concepts.	Outstanding critical evaluation and analysis of concepts and principles. Uses evidence exceptionally well to connect ideas, and support highly logical and persuasive, arguments and judgements. Evidence of independent thought and ability to 'see beyond the question', suggesting a clear grasp of the broader field and wider concepts. Perceptive recognition of

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							the limits of their knowledge, and how this influences their analyses and interpretations.
Practical skills (Apply underlying concepts and principles more widely outside the context in which they were first studied; use a range of established techniques; propose solutions to problems arising from analysis.)	Limited or no use of established methods, materials, tools and/or techniques. Little or no appreciation of the context of the application. Limited understanding of the application of theory to practice or making appropriate links between the two. Very weak problem-solving skills outside the context in which they were first studied.	Rudimentary application of established methods, materials, tools and/or techniques but without consideration and competence. Flawed appreciation of the context of the application. Weak understanding of the application of theory to practice, with only occasional evidence of making appropriate links between the two. Weak problem-solving skills outside the context in which they were first studied.	An adequate awareness and mostly appropriate application of established methods, materials, tools and/or techniques. Basic appreciation of the context of the application. Theoretical knowledge and understanding applied in practice, but not always making logical links between the two. Can identify problems and propose basic solutions outside the context in which they were first studied.	A good and appropriate application of established methods, materials, tools and/or techniques. Clear appreciation of the context of the application. Mainly consistent, accurate and logical application of theory to practice, making appropriate links between the two. Can identify problems and propose mostly appropriate solutions outside the context in which they were first studied.	A very good application of a range of established methods, materials, tools and/or techniques. Very good consideration of the context of the application, with perceptive insights. Consistent, accurate and logical application of theory to practice, making appropriate links between the two. Can identify problems and propose appropriate solutions outside the context in which they were first studied. Evidence of some creativity.	An advanced application of a range of established methods, materials, tools and/or techniques. The context of the application is well considered, and insightful. Consistent, accurate and logical application of theory to practice, making well-developed links between the two. Can identify problems and propose excellent, creative solutions outside the context in which they were first studied.	Exceptional levels of application and deployment skills using established methods, materials, tools and/or techniques. Consistent, accurate and logical application of theory to practice, making highly developed links between the two. Can identify routine and non-routine problems and propose quite sophisticated, creative solutions outside the context in which they were first studied.
Transferable skills for life	Communication medium is	Communication medium is poorly	Can communicate in	Can communicate	Can communicate	Can communicate	Can communicate

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and professional practice (Effectively communicate in a variety of forms to specialist and non-specialist audiences; the qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and decision-making.)	inappropriate or misapplied. Work is poorly structured, disorganised and/or confusingly expressed. Very weak use of language and/or very inappropriate style. Failure to work effectively as part of a group. Little or no evidence of the skills for employment requiring the exercise of personal responsibility and decision-making.	designed and/or not suitable for the audience. Work is poorly presented in a disjointed manner. It is loosely, and at times incoherently, structured, with information and ideas often poorly expressed. Weak use of language and/or inappropriate style. Flawed approach to group work, meeting only partial obligations to others. Limited evidence of the skills for employment requiring the exercise of personal responsibility and decision-making.	a suitable medium for the audience but with some room for improvement. Mostly ordered presentation and structure in which relevant ideas / concepts are reasonably expressed. Work may lack coherence in places. Can work as part of a group, meeting most obligations to others but perhaps with limited involvement in group activities. Demonstrates the basic skills for employment requiring the exercise of personal responsibility and decision-making, with some areas of minor weakness.	effectively in a suitable medium for the audience, but may have minor errors. Mostly coherent, organised work, in a suitable structure and is for the most part clearly expressed. Can work effectively independently and/or as part of a team, with clear contribution to group activities. Demonstrates the skills for employment requiring the exercise of personal responsibility and decision-making, with some areas of strength and some of minor weakness.	well, confidently and consistently in a suitable medium for the audience. Work is coherent, fluent, well-structured and organised. Can work very well autonomously and/or as part of a team, with very good contribution to group activities. Demonstrates very good skills for employment requiring the exercise of personal responsibility and decision-making, with just occasional minor weakness.	professionally confidently and consistently in a suitable medium for the audience. Work is coherent, very fluent and is presented proficiently. Can work autonomously with initiative. Where relevant can work professionally within a team, showing leadership skills as appropriate, and meeting obligations. Demonstrates excellent skills for employment requiring the exercise of personal responsibility and decision-making and an appetite for further development.	with an exceptionally high level of professionalism, highly suitable for the audience. Work is exceptionally coherent, very fluent and is presented professionally. Can work exceptionally well within a team, showing leadership skills. Demonstrates exceptional skills for employment requiring the exercise of personal responsibility and decision-making and an appetite for further development.

THIS DOCUMENT IS ALSO AVAILABLE IN WELSH