

## ASSIGNMENT SPECIFICATION

|                   |                                                                                            |                                                |                  |
|-------------------|--------------------------------------------------------------------------------------------|------------------------------------------------|------------------|
| Student name:     |                                                                                            | Student P number:                              |                  |
| Programme:        | MDes[Hons]   BA[Hons] Product Design<br>MDes[Hons]   BSc[Hons] Product Design & Technology | Faculty/School:                                | FAD/SD&AA        |
| Module:           | Advanced 3D CAD                                                                            | Module Level (4, 5, 6, 7):                     | 5                |
| Module code:      | M5X01237                                                                                   | Contribution to Overall Module Assessment (%): | A1: 50<br>A2: 50 |
| Lecturer:         | MA   SJ                                                                                    | Internal Verifier:                             | PM               |
| Assignment Title: | 'Theory to Real'                                                                           | Assignment No (x of x):                        | 1/2 of 2         |

|                |          |                  |                              |                |                       |
|----------------|----------|------------------|------------------------------|----------------|-----------------------|
| Hand Out Date: | 03.10.17 | Submission Date: | A1: 08.01.18<br>A2: 08.01.18 | Feedback Date: | Wk beginning 22.01.18 |
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| <b>Referencing:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Written coursework submissions:</b> In the main body of your submission you must give credit to authors on whose research your work is based. Append to your submission a reference list that indicates the books, articles, etc. that you have read or quoted in order to complete this assignment (e.g. for books: surname of author and initials, year of publication, title of book, edition, publisher: place of publication). Harvard or APA referencing systems is accepted.<br><br><b>Practical coursework submissions:</b> You must give credit to designers or artists whose work you have used to inspire your own. Where specific designs or images have been used in your development work you must indicate the name of the ‘author’ and details of the source of the work (e.g. book, journal, website etc.). |  |                            |            |   |
| <b>Disclosure:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | I declare that this assignment is all my own work and that I have acknowledged all materials used from the published or unpublished works of other people. All references have been duly cited.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                            |            |   |
| <b>Student’s Signature:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <i>Assignments will not be accepted without a signature here and date &gt;</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | <b>Date of submission:</b> |            |   |
| <b>Turnitin:</b> Lecturer to tick to indicate if an electronic version of the assignment must be submitted to Turnitin.<br><br>If both electronic and hard copy submissions are required then both versions <b>MUST</b> be submitted by the same deadline. No marks will be released until both submissions are received.<br><br><b>Note: the Turnitin version is the primary submission and acts as a proof of receipt for the student.</b><br><br><b>A paper receipt must be completed for hard copy submissions, including portfolios and other design work.</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                            | <b>YES</b> |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                            | <b>NO</b>  | ✓ |

**Penalties for late submission: Up to ONE week late, maximum mark of 40% for first attempt.  
Work cannot be accepted after ONE week and will be recorded as a non-submission, 0%.**

- The Assignment Specification Form **MUST** be at the front of all assignment submission. Assignments will not be accepted without this form, as it is a requirement that you sign the disclosure regarding referencing conventions.
- DO NOT** include this form in your Turnitin submission or it will match many similarities with other students' submissions.

*This form must be signed and submitted with your assignment*

# ASSIGNMENT DESCRIPTION

## Learning Outcomes

Module Learning Outcomes being Assessed:

1. Use advanced 3D solid modelling tools to create realistic design solutions within a structured modelling workflow;
2. Use advanced 3D surface modelling tools to create realistic design solutions within a structured modelling workflow;
3. Understand CNC and Rapid Prototyping data protocols;

## Task

Advanced 3D CAD serves as a medium to develop competence and proficiency in the use of solid and surfacing modelling software in the detailing of design solutions and the production of technical and realistic output formats for design consideration.

### **Assignment 1 (A1) – 50% = Advanced Solid Modelling Design Project**

In conjunction with the Professional Practice module, model accurately (scale 1:1) in a solid modelling package a signed off design concept. The final outcome must attempt to detail all design features as would be in reality (not a block model!). In addition demonstrate the integrity of your modelling by converting and valid checking for 3D Printing/CNC machining.

#### **Assessment Criteria:**

Each design project will be assessed in relation to the specified deliverables as follows:

- LO1 using the common assessment & marking criteria 3, 6: Modelling Outcome
  - LO3 using the common assessment & marking criteria 3: STL file (checked for modelling integrity)
- (All criteria are weighted equally).

### **Assignment 2 (A2) – 50% = Advanced Surfacing Design Project**

In conjunction with the Professional Practice module, model accurately (scale 1:1) in a surface modelling package a signed off design concept. The final outcome must attempt to detail all design features as would be in reality (not a block model!). In addition demonstrate the integrity of your modelling by converting and valid checking for 3D Printing/CNC machining.

#### **Assessment Criteria:**

Each element will be assessed in relation to the specified deliverables as follows:

- LO2 using the common assessment & marking criteria 3, 6: Modelling Outcome (AC2)
  - LO3 using the common assessment & marking criteria 3: STL file (checked for modelling integrity)
- (All criteria are weighted equally).

**Submission: A1 & A2 – 10.00am 08.01.18**

**Feedback: During the week beginning 22.01.18**