Design for High Volume Assignment Rubric MMAN2130 T3 2019 (Total Marks 100, 35% weight)

High-Volume Re-design for Each Components	
Re-design Discussion Discussion of important features/changes from prototype design to the HV design consistent with material selection or manufacturing processes. This must be consistent with your engineering drawings.	10
Engineering drawing of High-Volume parts All components which are not off the shelf must have an engineering drawing which are compliant with the AS1100 standard. (Ensure it is not: under-dimensioned, image, not A4 or A3); Do not confuse Engineering Drawing and Assembly Drawing requirements.	12
Assembly Chart of HV design Correct formatting of an assembly chart reflecting necessary information based on the assembly drawing.	4
Assembly Drawing of HV design Correct formatting of an assembly drawing as per the AS1100 standard detailing necessary information.	10
Total	**36**

Material Selection for Each Components (where necessary)	
Translation - Identify the basic function of the component (please refer to appendix C of Ashby's "Materials Selection in Mechanical Design" 4th Edition) - Identify the constraints giving reason for them - Identify 1 objective criterion - Identify the free variable of the shape	6
Screening - Uses the correct chart - Displays constraint criteria on chart	6
Ranking - Uses the material index table to select the correct material index based on basic function of component - Includes the material index table to show where chosen material index is obtained from - Displays objective criterion on chart - Shortlist three material candidates based on ranking procedure	4
Documentation - Finds relevant information to allow selection of the most suitable material	4
Total	**20**

Manufacturing comparison for Each Components (where necessary)	
HV Manufacturing Process Research Identifies **four** feasible manufacturing methods for the material type chosen and briefly outlines their general pros and cons. Identify two most suitable methods for cost analysis giving reasons why. (For each component	10
HV Manufacturing Process Cost Analysis Completes cost analysis table comparing **two** applicable manufacturing methods using real values with reliable sources to select a suitable HV manufacturing process. (For each component)	15
Overall routing chart Correct formatting of a routing chart reflecting necessary information and how all parts shown on assembly drawing are assembled together.	11
Total	**36**

Formatting	
Professionally laid out report with good logical flow utilising correct referencing style, sectioning, table of contents and appendix.	**8**