

City University London

School of Engineering and Mathematical Sciences

Engineering Drawing and Design, EM 1105

Exercise code: DrE-5 Student Name:
Exercise type: Individual – Group, two weeks
Exercise title: Detailed drawing Part Number:

Exercise Assignment:

The task is to make a manufacturing drawing for the given mechanical element.

Week 1: Group Work

Students work in groups of 6-7. As a group discuss the functionality of the part you have been given its material and manufacturing method used to make it. Recognise its main geometrical features and discuss with the group members how to represent these.

1. Use measuring equipment to determine size of the part to its finest details.
2. Make an isometric sketch of the object and free hand orthographic projections with dimensions that represent part accurately.
3. Return the part and measuring equipment you used before you leave the class.

Week 2: Individual Work

1. Generate a detailed drawing of the part which should contain as many views and sections as necessary. That drawing will serve as the template for your further CAD exercise. Therefore it should contain all dimensions, tolerances and surface machining specifications required for the manufacturing of the part. Use as many A3 paper sheets with standard border and title block as necessary. Use as many orthographic projections and cross sections as necessary to describe part completely. Drawing must be in scale. Use 3rd angle projection.

Exercise tips:

Always read exercise assignment carefully.

When measuring parts do that systematically and handle measuring equipment carefully.

Scales, compass and other drawing tools should be used for this exercise. Arrange drawings neatly and ensure that all letters and lines are made according to BS308.

Hand in A3 drawing(s) to your tutor during tutorials in week 9. This is 2 weeks exercise.

Ensure that the name, group and other relevant data are filled in the title block

Note:

Drawings produced in this exercise must be marked and corrected before the part is drawn in CAD exercise.