Risk Assessment Form

(This is an active document and must be maintained)

UNIVERSITY OF CAMBRIDGE

Materials Science and Metallurgy

Date: 15th September 2017

Supervisor of Room/Area: **Prof. Serena Best & Prof. Ruth Cameron**

Room or area: **2_014 (CCMM Labs)**
(Describe location)

Name of Assessor(s): **Wayne Skelton-Hough**

Title of Activity / Experiment / Work Area:

Compaction and tension of samples and materials using the Instron 5567 mechanical testing apparatus

Description of Activity / Experiment / Work Area:

Use of the Instron 5567 mechanical testing apparatus to apply a force to a sample so that the force exerted on the sample and load beam movement can be measured.

SECTION 1: Identify all significant hazards, who or what may be affected by each individual hazard and controls in place to reduce risk to a minimum.

Hazard Description	Hazard to whom or what	Controls in place to reduce risk to a minimum
Electrocution	Person using the equipment	Inspect all electrical equipment and power cables before use and do not use any equipment that shows any signs of damage. Ensure electrical equipment carries an up to date PAT testing label before using it. The drive mechanism is guarded; operator should check the integrity of the guards prior to starting work. Cross-head speeds less than the maximum will normally be used.
Possible risk of trapping injuries between moving parts	Person using the equipment	The operator will be trained not to operate the machine with fingers etc. in the vicinity of the specimen. The specimen table is not enclosed, so a rapid withdrawal of fingers etc. at risk is facilitated.

Hazard Description	Hazard to whom or what	Controls in place to reduce risk to a minimum
Flying debris	Person using the equipment and other lab users in the vicinity	Specimens likely to fail in such a manner that could result in the energetic expulsion of debris from the sample area shall not be tested on this equipment until such time as suitable guarding has been acquired and installed.

SECTION 2: Emergency Procedures

In the event of evacuation (e.g. fire drill or other emergency), the test frame should be stopped immediately using the emergency stop button. Once cross head motion has been stopped, the equipment may safely be left unattended.

In the case of a crush injury, the affected area should be run under cold water for at least 15 mins and medical attention sought.

If the operator sustains a cut, it should be cleaned out and medical attention sought.

If anyone gets sample debris in their eye, wash the eye with water for at least 15 mins, lifting upper and lower eye-lid occasionally and then seek medical attention.

All spillages to be cleaned up immediately using water and paper towel.

Signature of Assessor(s)		**Date:** 15/09/17
Signature of Supervisor		**Date:** 19/9/17

SECTION 3: Review - This assessment must be reviewed every 12 months or earlier if the basis of the original assessment is altered.

Review Date	Reviewed by (Signature)

Review Date	Reviewed by (Signature)

Change log

Change	Date	Updated by	Description
1	13/09/2016	W. Skelton-Hough	Document issued.
2	12/09/2017	W. Skelton-Hough	Abbreviated document title added to document footer.
3	15/09/2017	W. Skelton-Hough	Section 3 of risk assessment added back into document.