

Undergraduate Project: Original Aims and Objectives and Safety Overview

School of Physics & Astronomy
Ysgol Ffiseg a Seryddiaeth



This document is intended to ensure that all students are aware of their original (starting) project activities and the likely requirements for the safe and proper execution of their projects e.g. compliance with Health and Safety regulations.

Students and supervisors should complete this document together and agree its content. Students should then submit this document to Turnitin no later than the end of Teaching Week 2 in the Autumn Semester and **before project work commences**.

Submission is taken to imply that the contents have been discussed and agreed. In case of any delay please inform the module organiser (westwood@cf.ac.uk) and aim to submit asap.

Note: Projects are expected to develop and evolve and so the “original objectives” aren’t fixed. However, changes should be agreed (between student and supervisor) – and major changes should be documented.

1. Safety etc: responsibilities

Regarding work associated with projects, it is supervisors who have the responsibility to ensure the proper training (e.g. “health and safety”, “ethics”) of their students, rather than the module organiser. Students effectively become members of their supervisor’s research group. This form serves to establish the supervisor-student relationship whilst allowing retention of School oversight.

2. Safety: Students working in laboratory environments

Laboratory based students are viewed in the same way as any other worker in that research environment (although usually with lower expected levels of competence and experience). Hence, the following must be completed and signed off:

- A formal induction into the laboratory before commencing work. Inductions will be individual to each laboratory.
- Risk assessments (RAs) or standard operating procedures (SOPs) for the activities they will perform.

The above should include appropriate training for the required activities and any signing off should be done by competent staff. Templates are available in learning central.

3. Safety: Students not working in laboratory environments

Health and Safety regulations are still pertinent, especially for activities including: computer work and external outreach work. The latter will certainly require appropriate risk assessments, training and guidance.

4. Notes to assist

- The relevant RAs/SOPs may already exist, or may need to be generated by the student as part of their project.
- All new RAs/SOPs must be checked and signed off by competent staff.
- Some projects may involve students working against a number of RAs/SOPs.
- As far as (safe) activities in a laboratory are concerned the “laboratory supervisor” is a higher authority than a “project supervisor”.

5. Advisors

The School Safety Coordinator is Mr David Beaumont-Walker. For particular “Hazards” specialist knowledge may be required and the School has a number of designated advisors who may be contacted for advice. This is best done through your project supervisor, the School Safety Coordinator or the projects module organiser.

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Student	Ashley Thean	Degree Programme	MPhys Physics	Supervisor	Dr. Simon Doyle
Project Title	Characterising Arrays of Kinetic Inductance Detectors			Rooms/Labs	N/2.09(A-B) and N/1.06
Original Project Aims and Objectives:					
<p>To fully characterise the SFAB Security imaging system in terms of detector sensitivity and yield. This will involve:</p> <ol style="list-style-type: none"> 1) Learning and understanding the microwave properties of superconductors 2) Learning and understanding how a Lumped Element Kinetic Inductance Detector works 3) Be able to form a simple simulation of a LEKID detector 4) Understand how to analyse data from a LEKID array and to make sensitivity measurements from this data 5) Be able to compare the data of each detector in the array to the expected photon noise limit. 					
Checklist:		Yes/No	If yes:		
Is the student working in partnership with any other students?		No	Name:		
Are any project activities to be conducted in the School or other establishments besides where they are living?		Yes	Students must have received training and be informed of how their activities will be conducted e.g. in a covid-secure fashion.		
Does the work involve use of chemicals?		No	Students must receive training (including reference to COSHH regulations) before work commences.		
Does the work involve use of a laser?		No	Students must receive training against Laser regulations before work commences.		
Does the work involve ionising radiation?		No	Students must receive training against Ionising Radiation regulations before work commences.		
Does the work involve extended periods at a computer?		Yes	A DSE assessment should be completed. (Be careful about using a laptop excessively).		
Is the work to be carried out in one of the School's experimental research laboratories?		Yes	The relevant laboratory manager should be made aware of the students activities and provide appropriate training before work commences.		
Are there any activities planned involving people from outside the School?		No	Students should seek guidance before work commences. Covid security will need to be considered.		
Does the work involve information gained from, or associated with, other people?		No	Students must receive ethics training before work commences.		