



University
of Glasgow | School of Physics
& Astronomy



PHYS4022P Physics H Project

Course Information Guide, updated June 2023

1 Course Details

PHYS4022P is the 30 credit H level project to be undertaken in the final year of an BSc(hons) degree. It constitutes an independent piece of scientific work, usually embedded in one of the research groups within the School of Physics and Astronomy or an affiliated external research group. The project is supervised by an academic or experienced research staff in the research group. The student will choose a project suited to their degree path.

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Time and place: Project work is able to be performed on Tuesdays and Thursdays from 11 am onwards, but working can be more flexible when agreed by the student and the supervisor. A total of 150h (typically averaging 10hrs per week) work plus time to prepare reports and presentations is expected. The work should be done in a period between October and March. A formative assessment (interim report) is expected early in November, a poster presentation in the beginning of March and the final report at the end of March. Detail on times and deadlines are posted on moodle.

Recommended Text: Scientific literature, original text and textbooks depending on the project.

2 Assessment

For all students the course will be assessed in three components, the work on the project (40% of the final marks), the project report (40% of the final mark) and an oral presentation (20% of the final mark). An interim report as part of formative assessment is expected as well. This report should be 1-2 pages long. The final project report should not exceed 15 pages. The assessment and marking criteria are published separately on moodle.

Note that the Code of Assessment of the University states that 10% (or 2 marks on the 22 point scale) of the final mark shall be deducted per day of delay and that after a delay of five days the work will receive a grade of H. A submission later than the provision of feedback would normally be treated as a non-submission and may affect the requirements for course credit.

Students who are at risk of missing, or who have missed, a presentation task or report submission deadline for reasons of “Good Cause” (see Section 7) should contact the Project Coordinator at their earliest opportunity. In the case of reports, the Project Coordinator has the discretion to allow a deadline extension of up to five working days. If five working days are insufficient for particular circumstances, students should make a formal “Good Cause” claim on MyCampus.

You will need to achieve at least a grade of D3 in this course in order to graduate with an Honours degree. This has to be achieved at the first attempt. A reassessment of project work and components of continuous assessment is not possible

3 Required Knowledge

The Physics H Project is a core requirement. By its nature, the detailed requirements will vary between projects and are given in the project description. A solid foundation in undergraduate physics is expected.

4 Intended Learning Outcomes

The BSc Physics Honours Project Aims are included in the General Aims for the BSc Physics 4H course.:

- (1) To present an integrated course of study which provides the student with knowledge and understanding of key principles and methods of modern physics;
- (2) To provide the opportunity to study in depth a choice of topics relevant to current developments in physics and its applications;
- (3) To provide training in the principles and practice of physical measurement techniques and scientific data analysis, and give the opportunity for the student to apply these in performing an extended project;
- (4) To develop the student's transferable skills, concentrating on work in a group (single honours students), the writing of reports on group and individual project work, and in verbal communication of such results;

- (5) To develop the students' ability to work effectively and to reinforce their individual responsibility for their own learning.

5 Course Outline

The Physics 4H Single Honours Project is a 30 credit project lasting a nominal 150 bench hours. The same is true for 4H Theoretical Physics students although they must take a project suitable for theory. It is included as an integral part of the Physics 4H Single Honours course. The project begins at the start of Semester 1. A full report on the project must be submitted in Semester 2. A poster on the project work must be prepared and presented at a poster fair towards the end of semester 2.

Students can perform their project work in pairs. Projects which are offered will have separate but coherent strands, giving each student some independent work but allowing both to contribute to the overall objectives. Working together in teams allows more demanding problems to be tackled quickly and efficiently, and is an ability highly valued by employers.

Students will need to communicate frequently with their supervisor to ensure they are making satisfactory progress. To begin with, discussions may be lengthy as the aims of the project are defined and suitable strategies are developed to tackle the problems involved. The need for long discussions will reduce as the project progresses, but students must continue to discuss progress with their supervisors at least once each week.

Projects will start in Week 2. An interim report and plan of work must normally be submitted by the end of Week 7, although the date may shift depending on each year's timetable. The dates published on the moodle site are the relevant dates. Details are usually provided on the assessment calendar. One to two sides of A4 will be sufficient for this. A poster presentation of the project results is required and will usually take place towards the end of the second semester. The final report should be 15 pages in length and cover the background to the project briefly, the methodology, the results and their analysis including the effects of errors, the significance and implications of the results, and the conclusions. A brief abstract must also be included. The report should follow the template provided. Note that to avoid possible bias in the marking process, all filenames, cover sheets etc. should only refer to your matriculation number and project title and not to your first name or surname.

Students will be assessed on the conduct of their project work, on a detailed report, and on a poster presentation of the outcomes of their work. Each student will be assessed on his/her own contribution, will write a separate report and present a separate poster. The project work will be assessed by the project Supervisor and the report will be assessed by an independent staff member. The poster presentation will be assessed by the Projects Coordinator, the Deputy Project Coordinators and other co-opted members of staff.

6 Attendance and Performance Affected by Good Cause

If you are absent for a significant period of time (greater than a few days) and unable to perform your project work, it is important to inform your project supervisor. Prolonged

absences, due to illness for example, should be recorded through a Good Cause claim as these will ultimately affect the progress and achievements on the project.

If you miss an assessment deadline, or if you believe your assessment performance has been affected by adverse circumstances, you should submit a **Good Cause Claim**, and this must be via MyCampus.

Submission of a Good Cause Claim is the mechanism that allows your circumstances to be considered by the Board of Examiners. Please note all Good Cause Claims must be submitted within **one week** of the date of the affected assessment.

Students should note that the University's Code of Assessment allows grades to be awarded only on the basis of demonstrated work. So, if you feel that some piece of assessed work has been affected by adverse circumstances, and if staff agree, then the only course of action available is for the grade for that piece of work to be set aside (in the case of continuously assessed work and Class Tests) or to allow a resit (in the case of Degree Exams) – marks cannot be adjusted.

To submit a Good Cause Claim on MyCampus:

1. Go to the 'Student Centre' and select *My Good Cause* from the Academics menu.
2. Select the relevant course(s).
3. Complete the report in MyCampus (there is provision for particularly sensitive information to be provided separately, outwith the system, but a claim report must still be entered into MyCampus).
4. Add supporting evidence by uploading documents. (Scanners are available on level 3 of the University Library.) It is the responsibility of the student to keep all original documentation and submit it to the Class Head on request.

If you encounter any difficulties with this process please contact the Class Head immediately to let him or her know you have a problem with your Good Cause Claim.

What will happen to your Good Cause Claim

The Course Administrator and/or Class Head will ensure that your claim is considered and this will be in accordance with the section of the Code of Assessment which covers incomplete assessment and good cause (paragraphs 16.45 to 16.53). The outcome of your claim will be posted into the Approval Information section on your Good Cause Claim in MyCampus. If it is accepted that your assessment was affected by good cause, the work in question will be set aside and you will (as far as is practicable) be given another opportunity to take the assessment with the affected attempt discounted.

For absences that are significant but for which a good cause claim is not being filed, students must complete a **MyCampus absence report**. A significant absence is defined to be:

- (6) an absence of **more than seven consecutive days** during working periods
- (7) an absence of **any duration** if it prevents a student from for example fulfilling any minimum requirement for the award of credit (e.g. missing attendance at one day of a two-day laboratory, but where the work was nonetheless submitted and therefore

not involving a Good Cause claim).

All potentially significant absences should be reported as soon as is practical, by completing part 1 of the MyCampus absence report. Part 2 of the MyCampus absence report should be completed on return to university. The normal submission deadline for the completed absence report is 7 days after return to university. Documentary evidence is required when reporting any significant absence.

See also the Senate Office Absence Policy:

<http://www.gla.ac.uk/services/senateoffice/policies/studentssupport/absencepolicy/>

7 Code of Professional Conduct in the Laboratory

Our aim is to provide a safe and enjoyable learning experience for all students in the laboratory. Whilst we as staff will do everything we can to help with this, students also have an important role to play in ensuring that this is achieved. We would specifically like to highlight the following points:

- 1) The laboratory is a professional working and studying environment. We therefore expect you to behave in a professional manner towards one another and towards the lab demonstrators and staff at all times
- 2) Follow all safety instructions, in terms of both general good practice, and with regard to experiment-specific points. This is critical both for your own health and for that of your fellow students. Specifically, safety instructions given by technicians or the lab demonstrators **must** be adhered to.
- 3) We value the diversity of our student body and recognise that this diversity improves the quality of our work by allowing students to bring a range of skills and viewpoints to inform and enhance their collective achievements. We therefore expect that students will work productively and professionally together in an atmosphere of mutual respect.
 - a. With this in mind, **any** form of bullying and harassment – such as on the basis of any personal characteristic (including, but not limited to: nationality, race, disability, gender or gender identity, religion [or proxies for this, e.g. football team allegiance], sexuality, appearance, or age) – is unacceptable.
 - b. Please avoid at all times potentially offensive "banter" with your fellow students, which may be hurtful and problematic for some, including those who witness it. Please note that claiming something was "banter" is in no way an excuse for bullying or harassing behaviour.
- 4) Any reports of bullying, exclusion, or discriminatory behaviour will be taken very seriously by the School of Physics and Astronomy. If anyone wishes to report any untoward behaviour, speech or social media content from any person or group of people in the laboratory, they may do so in confidence to the lab head, his/her deputy, to the School Equality and Diversity officers (currently Mrs Angela Eden and Dr Eric Yao), or (in the case of staff) to a trade union representative. All such concerns will be treated seriously and in confidence. (This includes incidents where students or staff are the targets or the perpetrators of such behaviour).
- 5) Some of these points are also included in the University of Glasgow *Dignity at Work and Study Policy* and the *Code of Student Conduct* and can result in disciplinary proceedings, where appropriate. For further information see:
<https://www.gla.ac.uk/myglasgow/humanresources/equalitydiversity/policy/dignityatwork/>

<https://www.gla.ac.uk/myglasgow/senateoffice/policies/calendar/calendar2017-18/feesandgeneral/studentsupportandconductmatters/reg33/>