



# PHYS5021P: MSc Project

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*Course Information Guide, Academic year 2023-24*

## 1 Course Details

<b>Coordinators:</b>	Dr Robert Bennett, Dr Rachel Montgomery phas-pgtprojects@glasgow.ac.uk	<b>Schedule:</b>	Full time, 14 weeks
<b>SCQF Credits:</b>	60	<b>ECTS Credits:</b>	30
<b>Assessment:</b>	Oral presentation (20%) Dissertation (40%) Project performance (40%)	<b>Co-requisites:</b>	None
<b>Level:</b>	Masters		
<b>Typically Offered:</b>	Summer (June-August)	<b>Prerequisites:</b>	None

## 2 Course Aims

This is a 60-credit project normally carried out in the summer period (June-August). This course provides students with an opportunity to carry out an extended, in-depth research project embedded within one of the School of Physics and Astronomy's internationally-leading research groups. Under some circumstances, this project may also be carried out in the premises of specific external partners.

By undertaking the MSc project, students will gain, within a first-class training environment, subject-specific and generic skills that will form an excellent foundation for a career of scientific leadership in academia and industry. The course aims are:

1. To provide advanced training and experience in the principles and practice of experimental, computational and/or theoretical (astro)physics, using advanced instrumentation, methodology and software as appropriate, and in the critical analysis of experimental data.
2. To develop problem solving abilities, critical assessment and communication skills, to a level appropriate for a career of leadership in academia or industry
3. To employ these skills in preparing and writing a dissertation on an extended and demanding project.
4. To encourage students to work effectively, to develop a professional attitude to what they do and to take full responsibility for their own learning.

## 3 Intended Learning Outcomes

At the end of the course students should be able to:

- 1) Recover, evaluate and summarise the professional literature and material from other sources concerned with a chosen area of physics or astronomy

- 2) Prepare a written analysis of the current position in the chosen area, which should include a critical comparison of material from the sources he/she has identified and a summary of likely future developments.
- 3) Define, with the help of colleagues and taking into account the time available, a suitable area of work for a project and hence make a preliminary definition of goals to be achieved during the project
- 4) Make an appropriate safety assessment for the work proposed; with the help of colleagues, analyse what experimental/theoretical/computational methods might be necessary to achieve the goals of the project and hence decide how the project tasks should be organised
- 5) Perform the practical part of the investigation, taking due account of experimental errors of measurement and possible assumptions and approximations in analytical and computational work as appropriate
- 6) Revise the goals and strategies for completion of the project in the light of results achieved and difficulties encountered.
- 7) Write a report on an extended piece of project work, which should include a critical evaluation of the significance of the work and how it compares with work done in the same area, both within the local area and as reported in the general scientific literature
- 8) Prepare an abstract of the work performed of length about 250 words in the accepted scientific format.

## 4 Assessment

The MSc project is assessed by:

- an interim oral presentation demonstrating progress made in the project (20%). The oral presentation will be given, approx. half-way through the project, in front of academic staff and MSc students.
- the detailed project dissertation, submitted after completion of the project work (40%). The dissertation should be uploaded on the MSc Project Moodle site as a PDF document by the relevant deadline.
- the student's performance during the project assessed by the project supervisors (40%).

Guidance on how to prepare for the MSc project report and oral presentation is given on the MSc Project Moodle site. Feedback on your performance will normally be given within 15 working days of the relevant assessment component.

## 5 Progression to the MSc Project

The [generic regulations for Taught Masters degrees](#) state that before students can progress to the dissertation, they must achieve an overall GPA of at least 12.0 in the programme's taught courses, with at least 75% of the grades above 9 and no grades below 3 (on the 22-

point scale). The regulations are clear that the Masters degree cannot be awarded where the progression criteria stated above are not met.

## 6 Schedule

At the start of the project, each student, together with their supervisor, must complete and sign the Safety Assessment and Plan for Safe Working form and return it via the relevant Moodle submission link.

In order to progress to the Project, students must meet the progression criteria outlined above in Section 5. In practice, students are required to start work on the project before the relevant examination boards have met, i.e. before the course grades are published and the final GPA for the taught courses is known. Some students will commence work on the project but may subsequently be found to have not met the progression criteria. Those students will normally be asked to focus on resit examinations to improve their performance and meet the progression criteria: in other words, they will be prevented to progress to the MSc Project phase. Students may exceptionally be allowed to progress to the MSc project if there is a reasonable prospect that they will meet the progression criteria after taking up to two resit examinations in August. The decision is taken by the relevant Examination Board and is subsequently communicated to the student by the Course Convenor. This confirmation is normally communicated around mid-June.

It is therefore advised that students start by acquiring the necessary skills and background knowledge in the first couple of weeks, and then move on to more challenging work once they have received the confirmation that they are allowed to progress to the project.

The first milestone is half-way through the project, when students are required to deliver an interim oral presentation, demonstrating progress made in the project.

The dissertation should be submitted after completion of the project work as a PDF document.

Project supervisors are required to grade the student's performance in the project. The project report will be marked by two independent academic staff members who were not involved in the project.

How the project work is organised is very much left to the supervisor(s) and the student. Questions before, during, or after the project can be emailed to the MSc Project coordinator.

## 7 Further Information

Further information can be found on the course Moodle page and also using the links below:

- [Course specification](#)

- [Reading list](#)