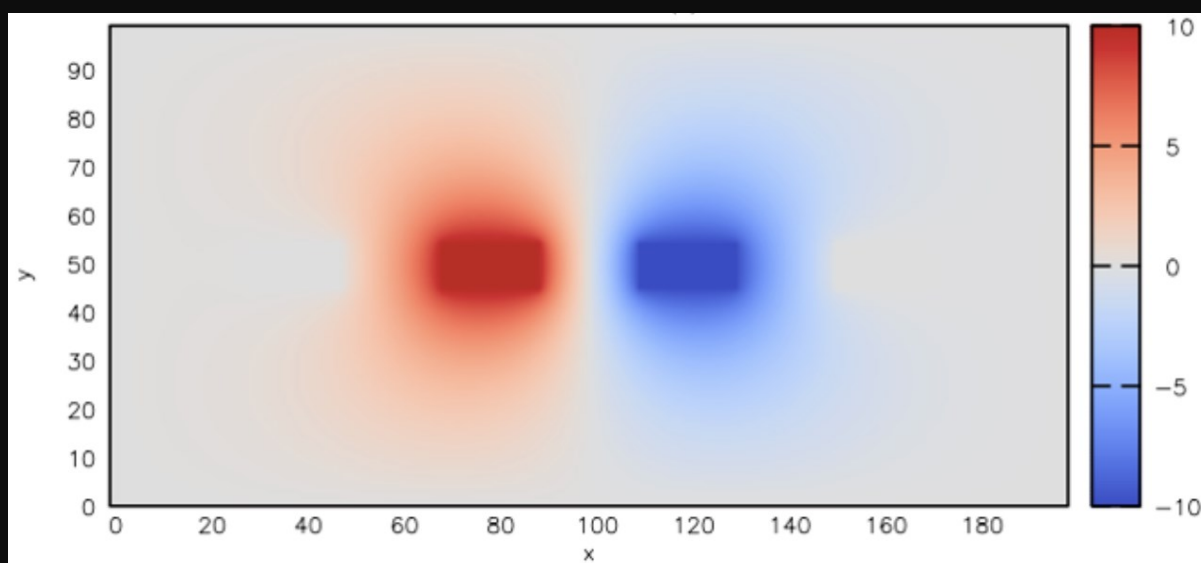




University
of Glasgow | School of Physics
& Astronomy



PHYS4029P Theoretical Physics Group Project

Course Information Guide 2023-24

1 Course Details

Lab. Heads:	Dr Robert Bennett	Schedule:	Tue. and Thur. 11am-5pm
SCQF Credits:	20	ECTS Credits:	10
Assessment:	Laboratory (100%)	Co-requisites	PHYS4011 , PHYS4031 , PHYS4025 , PHYS4030 , PHYS4003 , PHYS4009
Level: Typically Offered:	Honours Semester 2	Prerequisites:	Physics 2

2 Assessment

This course is assessed by a combination of a number of continuous assessment elements:

- Individual presentations midway through the project
- A final group report
- A group presentation at a final group conference
- An individual report on the individual's contribution to the overall project

3 Course Aims

This course is only open to students who meet the requirements for entry, or progression, for a degree programme in Theoretical Physics. It aims to provide students with an opportunity to develop knowledge and understanding of the key principles of theoretical and computational physics, and their importance for the planning and execution of investigations of physical processes using computational simulations, working within the context of a group project. To develop students' group working and presentation skills.

4 Intended Learning Outcomes

By the end of the course students will be able to:

- Demonstrate knowledge and broad understanding of key principles of physics relevant to a theoretical investigation.
- Further your knowledge of programming in a suitable language.
- Apply computer software to present data and to write scientific reports.
- Apply logical analysis to problem solving.

- Interact positively with colleagues in a group context.
- Apply team-working skills to address a complex physics problem and contribute significantly to the work of a group tackling such a problem, combining their own work constructively with the work of others.
- Contribute to the management of a group engaged in project work.
- Combine with colleagues to prepare and deliver a presentation and report of group work.

5 Course Outline

Students will:

- Work in groups over a complex theoretical physics problem over the course of a whole semester;
- Specialise into delivering a key part of the whole project whilst contributing to the overall success;
- Combine their own work constructively with the work of others and learn to value the diverse contributions possible in a group working environment;
- Contribute to the management of a group engaged in project work;
- Give an oral presentation on an aspect of their work in the group;
- Combine with their colleagues to prepare and deliver a group presentation and report;
- Write a detailed report on their personal contribution to a group project.

6 Further Information

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

- [Course specification](#)