12998 - 372(8) Project (Theoretical Physics) (0.7l, 0.7p)

2018

Course summary:

Application(s) of topics forming part of the BSc programme in Physics, stream Theoretical Physics.

Method of assessment: Flexible assessment

Language policy:

Afrikaans and English in the same class groups:
During each lecture, all information is conveyed at least in English. Summaries and/or explanation of the core concepts will also be given in Afrikaans. Questions in Afrikaans and English will, at the least be answered in the language of the question. Students will be supported in Afrikaans and English during a combination of appropriate facilitated learning opportunities.

Module relevance in programme:

In this course students will engage in supervised project work on topics aligned with the research interests of the theory group and the content of their second and third year modules. This provides students with the opportunity to apply and refine their technical skills and to engage, somewhat independently, with the physics literature. Each student is required to prepare a report and presentation detailing their work, which is a valuable exercise in scientific communication and also serves as a primer for the sizable project component of the theory honours programme.

Outcomes of course:

This course exposes the student to independent project work. In particular the student is skilled in the use and reading of physics articles, a textbooks and the writing of scientific reports.

Lecturer:

Prof KK Müller-Nedebock
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Mentor:

The Department of Physics has appointed a staff member as mentor for each year of its physics programme to be available to students for consultation. Students should feel free to discuss general issues related to the physics programme or specific modules in the programme with the relevant mentor, in addition to usual consultations with their individual lecturers of modules.

The mentor for second year programme and its modules is Dr CM Steenkamp cmsteen@sun.ac.za

Course content:

Supervised project work usually entailing reading various source texts independently and performing a calculation or simulation. The results of this are written up in a report.

The project is scheduled for the second semester of **2018**. However, some projects may require an earlier starting date. It is crucial that students and supervisors agree on a suitable timeframe for the completion of the project. This should be finalized within the first two weeks of the second quarter.

Study material:

Depends on the project chosen, but will involve the reading of texts and articles available through the Library.

Assessment:

Methods of Assessments

A final mark is awarded on the basis of the written report (80%) and an oral presentation of the project (20%)