Mathematical Techniques 2

PHY4122

MT2

Module Organiser:

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Module Webpage:

http://ph.qmul.ac.uk/course/phy4122

- # Course Structure and Assessment

  The course consists of **3 lectures per week, a 2-hour Mathematica Laboratory class each week, and weekly homework assignments.** Each assignment contains a set of problems, which must be handed in for marking. **NOTE: All Homework and Mathematica Assignments will be posted on the module webpage on Thursdays for the following week.**

  Assessment is based on:

Homework	20%
Mathematica Labs	20%
Final exam in May/June	60%

  Exams papers of previous years will be available on the module webpage. (Prior to 2010 there were two exam papers, but the content was similar)

- **Lectures**

  Lectures are scheduled at the following times and locations:

Wednesday	10.00–12.00	Physics Lecture Theatre
Thursday	9.00–10.00	Physics Lecture Theatre

  A register will be taken at all lectures and labs.

  A set of **Lecture Notes** will be made available on the course website on a weekly basis. Lectures will involve the use of the whiteboard and students are **strongly encouraged to take notes to complement the online lecture notes**. Some of the lectures will be used for worked out examples such as the solutions of the homework assignments (after the due dates).

- **Homework Assignments**

  There will be nine homework assignments, the first one being posted on the course webpage at the end of Week 1 (starting 7th January). **Assignments will normally be posted by Thursdays on the webpage. Hand in date is Wednesday 16:00 one week after and the scripts must be left in the script collection box provided on the 1st floor of the Physics building**. About a week later the marked assignment scripts will be returned during the lab classes or the Wednesday lectures.

  Late assignments will be normally marked to zero unless there are valid medical or other reasons

  You may not be able to solve every problem completely, but you should at least make an attempt - remember that these problem assignments contribute significantly to your final mark and give you valuable practice at exam-type questions.

When doing the problems

1. Always put your name at the top, and make sure it's clearly written.
2. Write clearly and legibly.
3. The problems will always be linked with material covered in the lectures.

- **Mathematica Laboratory Classes**

  Beginning with Week 2, each student is required to attend **one of two 2-hour Mathematica Laboratory classes each week** .

  Group A: students surname beginning M-Z
  Monday 14.00–16.00 Engineering Building, Room W128d
  Group B: students surname beginning A-L
  Tuesday 14.00–16.00 Francis Bancroft Building, Room 1.23

  If you have good reason to change lab sessions, please let me know and I will normally allow you to do so.

  As for the homework assignments, the Mathematica lab assignments will be posted every Thursday on the course webpage.

  These classes are run by post-graduate students who will be on hand to help with any problems you may have. Make sure you have an active computer account in order to be able to use the computers in the computer lab. **In particular when you come to the Mathematica labs you need to know your** *username* **and** *password***, and you need to have print credit so you can print out your work to hand in.**

  Completed assignments will have to be handed over to the student running the lab. Marked scripts will be returned during the lab classes or the Wednesday lectures about two weeks after the assignment was posted.

- **Plagiarism**

  In cases where copying of assignment scripts is detected, both scripts shall be given zero marks in the first instance and may result in de-registration from the course. However, collaboration and mutual assistance between students on the methods and ideas needed to solve assignment problems is encouraged.

- **Module Requirements**

  Students who fail to meet the school's attendance requirements without medical or other valid reasons, verified by the student's adviser, will risk being de-registered from the module.

- **Office Hours:** Tuesdays 11.00 – 12.00, office Physics Building, Room 611. Alternatively, meetings can be arranged by appointment.

- **Course Webpage**: http://ph.qmul.ac.uk/course/phy-122 Contains Lecture Notes, all Homework and Mathematica lab assignment sheets, and past exams.

- **Books**

  1. K.F. Riley, M.P. Hobson, S.J. Bence
     Mathematical Methods for Physics and Engineering (Third Edition)
     Cambridge University Press
     (there exists a student solution manual for this book available from Cambridge University Press)
  2. Stroud, K.A.
     Engineering Mathematics & Advanced Engineering Mathematics
     Palgrave

  Most of the module material is in the Riley *et al.* book.