Welcome to the MPhys Year

Jim Dunlop
Head of School

Will Hossack
MPhys Project Course Organiser

Andrew Huxley
SH/IM Coordinator

Ala Ross
MPhys Project Support
Plan for today

Now     Head of School welcome (Jim Dunlop)
10.25   What’s new in the IM year (Andrew Huxley)
10.35   Life beyond graduation (Susan Bird)
11.00   Light refreshments
11.15   The MPhys Project (Will Hossack)
Obligatory Safety Briefing

Awuga! Awuga! Emergency! Leave building etc.

University Security: 2222 / 0131 650 2222
Shoutouts

Please consider being a student rep
Contact sst-to@ph.ed.ac.uk if interested

Outreach opportunities
Jean-Christophe Denis: j.c.denis@ed.ac.uk

Research Seminar Series

Higgs Colloquia
Fridays 1pm

Particle Experiment
Fridays 4pm

Condensed Matter
Mondays 1pm

ROE Colloquia
Wednesdays 3.30pm

Particle Theory
Wednesdays 2pm

Astrobiology
Tuesdays 1.30pm

https://www.ph.ed.ac.uk/events
The MPhys Project

“It’s on the wiki”

https://www.wiki.ed.ac.uk/display/MPhys5
Building Access (JCMB)

- Monday – Friday: 8:00 -> 21:00 (card after 18:00)
- Weekend: 9:00 – 17:00 (card access)

- Computer Lab, Workroom, general areas: (when building open)
- Experimental Labs: 9:00 – 17:00 weekdays ONLY

NO EXTENDED ACCESS FOR ANY REASON.
Day-to-day project work

40pt MPhys Project PHYS11016
or 20pt MPhys Project for Year Abroad PHYS11050*

Report

*Students enrolled on “MPhys with Year Abroad” degree programme only

Students taking the 40pt project also take...

Presentation

10pt MPhys Project Presentation PHYS11049

Public summary
Tangible scientific contribution

You will do something *new* – but likely *modest*:

- Develop an experimental technique to make a new measurement, or apply to new material / formulation
- Extend a simulation code to access a new parameter space
- Carry out a calculation that has been sketched in the literature but not published in detail.

Skills as an independent scientist

You will solve *routine* research problems *independently*:
- Sanity-check calculations
- Debug computer codes
- Refine experimental technique

You will discuss interesting science with your supervisor!
Tips for a successful project

- **Make sure you have a project**
- Meet your supervisor **this week**, and weekly thereafter
- Read the Course Information Booklet (**and the wiki**)
- Keep track of progress towards the main project goals
- Keep careful notes; be able to reproduce results
- Attend all classes and utilise all feedback opportunities
- Ensure you have the facilities you need to do your work
  - Let us know if you are concerned about your progress
- Don’t succumb to folklore (**check what is true**)
**Semester one**

- **Weeks 1-5**
  - Familiarisation
  - Background reading
  - Acquiring techniques
  - Reproducing earlier work

- **Weeks 6-11**
  - Preliminary results
  - Applying what you have learnt to explore a new problem
  - Getting things working

**Timeline**

- **Weeks 1-5**
  - Main stretch of calculation, simulation, experiment, ...
  - Extensions (if time)
  - Planning write-up
  - Production results

- **Weeks 6-10**
  - Checking of details, background ideas etc
  - Write-up takes about three weeks
  - Finishing and writing up

**Semester two**

- **Weeks 6-11**
  - Write-up takes about three weeks
  - Finishing and writing up
Laboratory Safety

If in experimental lab it is ESSENTIAL to:

• Discuss the various hazards and safety procedures with supervisor BEFORE YOUR START.
• Obey handling procedures and safely notices.
• Ensure YOU happy and understand safely procedures.
• Complete, sign and return Laboratory Safety Statement to Teaching Office by BEFORE YOUR START (END OF WEEK 2.)

Two Golden Rules:
• If in any doubt ASK FIRST
• If it “feel risking”, it ”is” so “don’t do it!!!”

Remember they may be other serious hazards in same lab.
Do NOT PLAY with other bits of kit.
<table>
<thead>
<tr>
<th><strong>Project performance</strong></th>
<th><strong>Report</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor: 30%</td>
<td>40pt: ~30 pages</td>
</tr>
<tr>
<td></td>
<td>20pt: ~20 pages</td>
</tr>
<tr>
<td>Feedback: S2W1 – draft section; S2W5: report outline</td>
<td></td>
</tr>
</tbody>
</table>

**MPhys Project Presentation** (not Year Abroad)

<table>
<thead>
<tr>
<th><strong>Presentation</strong></th>
<th><strong>Public summary</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel: 80%</td>
<td>Supervisor: 10% – 2nd marker: 10%</td>
</tr>
<tr>
<td>Workshop: S1W11</td>
<td>Feedback: S2W1 practice talk</td>
</tr>
</tbody>
</table>
Classes & Deadlines

S1W3 – Brief Progress Report (Learn)
S1W4 – Computing Hands-On Workshop
S1W11 – Presentation Workshop – Christmas Social
S2W1 – Practice Talk + Report Section
S2W5 – Report Outline

Noon Mon S2W10 – Report Deadline (Learn)
Noon Fri S2W10 – Public Summary Deadline (Wiki)
9am Tue S2W11 – Presentation Slides Deadline (Learn)
Wed/Thu S2W11 – Presentations

(Items in italics: 40pt project only)
The MPhys Project

“It’s on the wiki”
https://www.wiki.ed.ac.uk/display/MPhys5
Also linked from LEARN Page